

IV. *A Catalogue of the Cetoniidæ of the Malayan Archipelago, with Descriptions of the new Species.* By ALFRED R. WALLACE, F.Z.S., &c.

[Read 1st July, 1867.]

THE following Catalogue is founded mainly upon the specimens collected by myself, with the addition of those found by Mr. Lamb at and near Penang; and I have incorporated all those contained in the Collections of the British Museum and of Major Parry, and have further introduced the names of all the described species of which I have not seen specimens, so as to form as nearly complete a local catalogue as can be done without studying the Continental Collections. In Gory and Percheron's "Monographie des Cétoines," published in 1833, only 45 species were described from the Malayan Islands, and a large portion of these were from the single island of Java. Burmeister's "Handbuch der Entomologie," dated 1842, has 60 species from the same region. The British Museum "List of Cetoniadæ," in 1847, gives 74 species as known, but several of these were undescribed. Lacordaire, in his "Genera des Coléoptères," in 1856, gives a list of 85 described species as found in this district. Since then Thomson has described 9, all collected by myself; Vollenhoven has added 14, obtained from Dutch collectors, and other authors 5; and in this paper are described 68 additional species, (also two from Cambodia),\* bringing up the total to 181 Malayan *Cetoniidæ*, not including the *Trichiidæ*.

Taken as a whole the *Cetoniidæ* are decidedly scarce in the equatorial regions. Now and then a species will occur in profusion, but this is an exception; the rule being that single specimens of a very few species are to be found at any one time. There are few groups in which mere collecting will do so little towards obtaining a fair proportion of the species. Fine weather, and good luck in being in the right place at the right time, will help the travelling collector to a few good things; but to obtain any thing like a complete knowledge of the group requires a long residence and the assistance of the whole native population. This is well shown by the comparatively small number of species collected by

\* [The whole of the new species were characterized in Proc. Ent. Soc. 1867, pp. xcii—xevii, published in July, 1867.—See. Ent. Soc.]

myself. During eight years most assiduous search, in about thirty different localities, I only obtained 85 species, or considerably less than half the number now known. Compare this with other families. I collected about a thousand species of Longicorns, and I feel certain that the additional species from the Malayan region either described or existing in English collections could not exceed four hundred. So in the *Buprestidæ*, the 355 species collected by me must form a very large proportion of all that are known from the region, for Lacordaire's work does not indicate more than 50 species from the same countries. In the *Papilionidæ*, out of 123 known species I collected myself no less than 92; and of *Pieridæ* 121 out of a total of 169.

The *Cetoniae* of the Malayan islands are neither so large, so varied, nor so numerous as those of the continent of Asia. The fine horned *Goliathinæ* of the Himalayas are represented only by two species of *Mycteristes* and a few small *Heterorhinæ*, and there is nothing to make up for this deficiency. *Lomaptera*, *Chalcothea*, and *Macronota*, are the most characteristic Malayan genera, and contain many beautiful species, but none exceed the middle size. The number of species found in any one locality seems to be influenced, first, by proximity to the continent, and next, by the mass of the island. The Peninsula of Malacca, though but very partially explored, has 44 species; Java, the best known by far of all the Eastern Islands, has 46; but some of these are book species which may have been already included under other names, and even if they were all distinct, the number is really less in proportion than that of Malacca, when we consider that the whole surface of Java is more or less known, and that the whole island has been for more than a century in the possession of Europeans, while in the Malay Peninsula small collections have been made only in a very few limited localities. Further from the continent, we find the whole group of the Philippines with 32 species; further still, Celebes with 19; Ceram and Amboyna with 11; the Aru Islands with 9, and the great Island of New Guinea with 12,—the slightly increased number being due to its large area, and very many more species remaining to be discovered there. The same diminution in receding from the continent is visible if we divide the Indian from the Australian regions of the Archipelago, the

former (extending as far east as Java, Borneo, and the Philippines) having 114 species, while the latter (stretching from Celebes to the Solomon Islands) has but 70.

This group of insects furnishes us with a very satisfactory confirmation of the view that the division of the Archipelago just alluded to is a truly natural one, however much it may be occasionally masked by special circumstances. No less than nine genera, *Mycteristes*, *Agestrata*, *Clerota*, *Plectrone*, *Chalcothea*, *Centrognathus*, *Rhagopteryx*, *Macroma*, and *Euremina*, are strictly limited to the Indian region; and two more, *Heterorhina* and *Clinteria*, only pass beyond it into the closely connected chain of islands from Java to Timor, and in the case of a single species into Celebes. Three genera, on the other hand, *Schizorhina*, *Anacamptorhina*, and *Sternoplus*, are restricted to the Australian region, and the genus *Lomaptera* is almost so, only 3 species out of 25 passing beyond its limits, of which one, *L. striata*, is the most aberrant of the genus, and the other two are closely allied forms which have a wide range on the continent. These remarkable limitations of genera do not accord with the supposition that the whole Archipelago forms a single zoological region, but they strikingly support the view that there is a line of very ancient division between its eastern and western halves, while the divisions between islands and groups of islands within either half are of more recent establishment, and are therefore less efficacious in limiting the range of species or of genera.

In classification I have not attempted to do more than follow Lacordaire, and do not profess to criticize his work in this very difficult family. I have proposed two new genera for species that appear to me strikingly distinct, and I have indicated two others that will probably have to be established when more materials are obtained.

The phenomena of variation are well exhibited here, and there are many cases in which structural characters are not a surer guide to specific distinction than colour or markings. In *Lomaptera pulla* and *Macronota regia* we have insects of wide range, and with such an amount of variation, that few would consider it possible that the extremes, considered alone, could be the same species; but these extremes are united by a series of intermediate forms, many of which occur together in the same locality. In other cases we have allied forms from adjacent islands

which so nearly resemble each other that it seems impossible to separate them, but close examination reveals minute but important differential characters which seem quite constant. Such are *Macronota carbonaria* and *M. egregia*, var. *nigra*; *Schizorhina Whitei* and *S. bouruensis*; *Lomaptera arouensis*, *L. ceramensis*, and *L. cambodiensis*; *Lomaptera pygidialis* and *L. batchiana*, and some others. Such cases force us to the conclusion that structural and superficial characters are about on a par as regards introducing any certainty into the definition of a species, and that a decided difference of colour and marking is often a better character than a slight modification of the form or sculpture of some important organ. Both are sometimes very constant, both are at times liable to much variation, and it is a matter of judgment and opinion how far we are to be guided by either in any particular case.

It will be as well, to avoid misapprehension, to say a few words about the localities given for the various species. All the specimens noted as from my collection were either obtained directly by myself in the localities named, or through collectors whom I knew well. All these localities therefore may be relied upon as perfectly authentic. The specimens collected by Mr. Lamb, and noted as from "Penang," were most of them collected, not in the island, but in the main land of the Malay Peninsula opposite, termed the "Province of Wellesley." "Penang" may therefore be held to signify merely a particular sub-district of the Malay Peninsula. The collections presented to the British Museum by Mr. Bowring comprise several thousand specimens labelled "Java." These were not collected by Mr. Bowring himself, but formed part of an extensive collection purchased by him, and said to have been collected in "Java and the adjacent islands,"—but chiefly in Java. It is to be remembered also, that for the last hundred years, collections have arrived in Europe from Java, which did not necessarily consist only of Javanese insects,—sometimes, on the contrary, they have been entirely formed in other islands. It follows that my own collections and those of Dr. Horsfield are the only perfectly authentic materials for the Entomology of Java, although I fully believe that by far the larger part of the species imputed to that island do really inhabit it, since it is unusually rich in every department of Zoology. The specimens from the

Philippine Islands are no doubt mostly well determined. A large number were collected by the late Hugh Cuming, and as there is scarcely any direct communication between this part of the Archipelago and any other, the collections are not likely to have been misappropriated. I have prefixed to each genus a few words on its distribution, and on any particulars of its habits known to me; and have added tables exhibiting at one view the distribution of the species, genera, and sub-families, through the various islands, groups of islands, and regions of the Archipelago.

Sub-fam. I. GOLIATHINÆ.

Gen. I. MYCTERISTES, Castelnau.

The two species of this genus are both rare. They are the only representatives of the fine Indian *Goliathinae* yet found in the Archipelago.

1. MYCTERISTES RHINOPHYLLUS, Wiedemann.

*Goliathus rhinophyllus*, Wied. Zool. Mag. ii. p. 82.

*Macronota rhinophyllus*, Gory & Perch. Mon. Cet. p. 317,  
pl. 62, f. 5.

*Mycteristes rhinophyllus*, Westw. Arc. Ent. i. p. 2, pl. i. f. 3.

*Hab.*—Java (Coll. Parry, B. M., *Horsfield*).

2. MYCTERISTES CUMINGII, Waterhouse.

*Mycteristes Cumingii*, Waterh. Proc. Ent. Soc. 1841, p. 26.

*M. (Phædimus) Cumingii*, Westw. Arc. Ent. p. 5, pl. i.  
f. 1, 2, ♂, ♀.

*Hab.*—Philippine Islands (Coll. Parry, B. M.).

Gen. II. HETERORHINA, Westwood.

This genus contains several distinct types of form. *Diceros*, Gory & Perch., of which *Cetonia bicornis*, Latr., is the type, may be held to include also the hornless species, such as *H. confusa*, Westw., which have exactly the same style of colouration. *H. dives* resembles *Diceros*

in its double horn, while in colour it approaches *Coryphocera*, which contains the green species with a small flat horn or none. *Diceros* is a group very characteristic of the Archipelago, in which all the horned species are found. *Coryphocera* is more abundant in India and Africa. Neither of them extends into the Moluccas, New Guinea, or Australia.

\* (*Diceros*, [err. *Dicheros*], Gory & Perch.).

1. HETERORHINA BICORNIS, Latreille.

*Cetonia bicornis*, Latr. Regn. An. t. iii. pl. 17, f. 4.  
*Diceros plagiatus*, Gory & Perch. Mon. Cet. p. 300,  
 pl. 58, f. 3.

*Hab.*—Timor (Coll. Parry, B. M.).

2. HETERORHINA FLORENSIS, n. s.

Nigra, nitida; thorace utrinque macula magna triangulari rubra; elytris singulis macula magna oblonga subquadrata flavo-testacea. Mas: cornubus duobus divergentibus recurvatis.

Black, shining; clypeus dilated, rounded in front and slightly notched; head of the male produced into two slightly divergent upcurved horns about as long as the thorax, head of the female nearly as in *H. bicornis* figured by Westwood (Arc. Ent. pl. 36, f. 8c), but the short horn is entire; head deeply punctured; thorax convex, finely punctured, the sides from the eye to near the outer angle blood-red, which colour extends in an irregular triangle to near the middle of the base; scutellum triangular, nearly equilateral, with scattered punctures; elytra punctate-striate and with scattered punctures, the disk covered by an elongate pale yellow patch, leaving a broad border at the base and apex, but a very narrow one at the sides; pygidium and the last abdominal segment blood-red; the sides of the thorax beneath the posterior coxæ, and a spot on the posterior femora, red; sternal process elongate, abruptly bent up between the anterior pair of legs.

Length, male 11 lines, female 10 lines.

*Hab.*—Flores (Coll. Wall.) ; ? Celebes (Coll. Parry).

## 3. HETERORHINA MALAYANA, n. s.

Nigra, nitida; clypeo truncato; thorace lateribus et fascia lata postica rubris; elytris singulis macula magna elongata flavo-testacea; femoribus rubris. Mas: cornubus duobus rectis, non divergentibus, sed apicibus dilatatis.

Black, shining; clypeus truncate in front; head of the male with two straight horns longer than the thorax, parallel, but flattened and curved on the outside at the apex; thorax distinctly punctured, with a narrow marginal band on the sides, connected by a broad transverse band close to the hind-margin, blood-red; elytra finely and regularly punctate-striate, the yellow patch still larger than in *H. florensis*; beneath, the sides of the thorax, all the thighs, the last abdominal segment, and the pygidium, blood-red. The sternal process as in *H. florensis*, but hardly so much incurved at the apex. Anterior tibiæ unarmed.

Length, male, 11 lines.

*Hab.*—Penang (Coll. Lamb).

The form of the horns of this species, no less than the colouration, distinguishes it from *D. ornata* as figured by Westwood, the thorax of which is also less punctured.

## 4. HETERORHINA ORNATA, Hope.

*Diceros ornatus*, Hope, Proc. Ent. Soc. 1841, p. 33;  
Burm. Handb. iii. p. 219.

*Heterorhina ornata*, Westw. Arc. Ent. i. p. 140, pl. 36,  
f. 6, 7.

“Niger, capite medio excavato, postice tridentato, thorace nigro, fascia obliqua rubra fere interrupta, elytris nigris, macula lata flava, basi apice suturaque, nigricantibus, pedibus nigris, femoribus rubro-coralinis. Long. corp. lin. 8. Hab. Mysore.”  
(Hope.)

*Hab.*—Philippine Islands (B. M. ♂, Coll. Parry, ♀).  
India? (Oxford Mus. ♀.)

The supposed Indian specimen (Hope's type) is identical with those from the Philippines; but as no specimens have arrived from India during the last twenty-five

years, and as the horned form of this group appears to be absent from the Indian Peninsula, I feel satisfied that the locality of that specimen is incorrect, and that it really came from the Philippines.

5. *HETERORHINA BIGUTTATA*, Westwood.

*Heterorhina biguttata*, Westw. Arc. Ent. i. p. 141,  
pl. 36. f. 5. ♀.

*Hab.*—Philippine Islands, (B. M.), type ♀.

This species seems very different from the Philippine island males which appear to be identical with Hope's type (a female) of *H. ornata* from India. It is a striking example of how much collections are still required from the East, that during the twenty-five years that have elapsed since Mr. Cuming returned from the Philippine Islands, no males of this species have been received in this country. This may probably be an extreme form of *H. ornata* ♀, from which it hardly differs except in the form and size of the spots.

6. *HETERORHINA PETELII*, Buquet.

*Gnathocera Petelii*, Buq. Ann. Soc. Ent. Fr. 1836, p. 206.

*Heterorhina Petelii*, Westw. Arc. Ent. i. p. 141, pl. 36.  
f. 4, ♀.

*Diceros decorus*, Gory & Perch. Mon. Cet. p. 301, pl. 58,  
f. 4, ♀, (*nec* Illiger) ; Burm. Handb. iii. p. 219.

*Hab.*—Java.

Westwood's figure shows that this must be a very distinct species of the horned group, the male of which is not yet known. There appear to be no specimens in this country.

7. *HETERORHINA DIVES*, Westwood.

*Heterorhina dives*, Westw. Arc. Ent. i. p. 134, pl. 33,  
f. 5 (details.)

*Gnathocera Macleay*, Gory & Perch. Mon. Cet. p. 129,  
pl. 19, f. 2, (*nec* *Macleayi*, Kirby.)

*Hab.*—Philippine Islands (Paris Mus.).



## 8. HETERORHINA NIGROTESTACEA, n. s.

Nigra, nitida; clypeo quadrato, integro; capite cornu parvo depresso; elytris macula magna quadrata testacea ad suturam interrupta; subtus immaculata, processu sternali longo, incurvato.

Black, shining; clypeus square; head rugose-striate, with a smooth ridge between the eyes, forming a depressed horn rather larger than in *H. Petelii*; thorax immaculate, punctured at the sides; elytra narrowed towards the apex, punctate-striate, on each side a large quadrate testaceous spot extending from the lateral margin to the sutural stria. Beneath immaculate; the sternal process long, incurved at the apex; anterior tibiae with a flat tooth just below the apical spine.

Length 9 lines.

*Hab.*—Malay Peninsula (Coll. Parry), Siam (Coll. Wall.).

## 9. HETERORHINA CONFUSA, Westwood.

*Heterorhina confusa*, Westw. Arc. Ent. i. p. 139,  
pl. 36, f. 2.

*Gnathocera bimaculata*, Gory & Perch. Mon. Cet. p. 142,  
pl. 22, f. 3, (*nec Cet. bimacula*, Wied.)

*Hab.*—Java (Gory & Perch.), India (Westw.), Philippine Islands (B. M.).

A species of the form of *H. bicornis*, but with the long horns in the male.

\* \* (*Coryphocera*, Burm.).

## 10. HETERORHINA MACLEAII, Kirby.

*Cetonia Macleaii*, Kirby, Trans. Linn. Soc. xii. p. 408,  
pl. 21, f. 11 (*nec Gory & Perch.*).

*Heterorhina Macleaii*, Westw. Arc. Ent. i. p. 134,  
pl. 33, f. 4.

*Hab.*—Philippine Islands (B. M.).

## 11. HETERORHINA DECORA, Illiger.

*Cetonia decora*, Ill. Vers. Oliv. ii. p. 148.

*Heterorhina decora*, Westw. Arc. Ent. i. p. 135,  
pl. 33, f. 6.

*C. maculata*, Gory & Perch. Mon. Cet. p. 310,  
(*C. 6-maculata*) pl. 19, f. 3.

*Hab.*—Java (B. M.), Penang (Coll. Lamb.), Sumatra (Burm.).

## 12. HETERORHINA BORNEENSIS, n. s. (Pl. XI. fig. 2).

Viridis; thorace punctato, macula magna centrali nigra; elytris rubro-nigris, fasciis (una mediana alteraque apicali) viridibus; capite cornu parvo dilatato, clypeo rotundato recurvato minime emarginato.

Silky green; clypeus rounded, recurved, slightly emarginate; head with a flat depressed horn dilated semicircularly at the end; thorax semicircular, thickly punctate, with a large central brown-black spot; scutellum triangular, smooth; elytra pitchy brown, punctate-striate, with a green band across the middle wider at the outer margins, and a curved green spot at the apex on each side; antennæ and tarsi pitchy, tibiæ with green markings, inner side of all the thighs and posterior coxæ pitchy brown; anterior tibiæ dilated, and with a strong lateral tooth; sternal process flat, elongate, curved upwards.

Length 9 lines.

*Hab.*—Borneo (Coll. Wall. ♀).

This agrees very nearly in many characters with *H. dives*, of which only the male is known from the Philippine Islands, but so much confusion has been caused by describing opposite sexes found in distant localities as the same species, that I think it much better to describe this insect as distinct.

## 13. HETERORHINA MITRATA, n. s. (Pl. XI. fig. 1).

*H. borneensi* similis, sed capite cornu acuto et clypeo elongato bidentato.

Green ; the spot on the thorax as in *H. borneensis*, the elytra with the median band broader and sloping backwards from the suture so as to join the apical spots ; clypeus elongate, recurved, and deeply cleft ; a very short flat triangular horn between the eyes ; pygidium green on the outer edge only ; antennæ and legs as in *H. borneensis*.

Length 10 lines.

*Hab.*—Penang (Coll. Lamb, ♀.)

This species and *H. borneensis* are strikingly alike in form and colouration, but differ completely in the armature of the head. The males of both may perhaps be as fine insects as *H. dives*.

14. HETERORHINA MODESTA, n. s. (Pl. XI. fig. 3).

Nigra, elytris singulis macula magna obliqua viridisericea ; clypeo quadrato, margine antico integro ; vertice obscure carinato.

Elongate, attenuate behind, black ; clypeus quadrate, the margins reflexed, entire ; head unarmed, with traces of a ridge between the eyes ; thorax convex, smooth, its base as broad as the elytra, the hind-angles acute ; elytra very smooth, a large irregular silky-green patch extending from the basal half of the suture to near the apical half of the outer margin, the apex somewhat produced and spined ; anterior tibiæ of the male unarmed, of the female with a strong tooth near the extremity ; posterior tibiæ rather long ; sternal process elongate, flattish, much curved.

Length 9 lines.

*Hab.*—Tondano, North Celebes (Coll. Wall, ♂. ♀).

This elegant species presents no sexual differences but those of the furrowed abdomen and unarmed anterior tibiæ of the male. Major Parry possesses a male from the same locality, which is much broader in proportion than my specimens, but otherwise exactly resembles them.

15. HETERORHINA LÆTA, Fabricius.

*Cetonia læta*, Fabr. Syst. El. ii. p. 150.

*Gnathocera læta*, Gory & Perch. Mon. Cet. p. 135,  
pl. 20, f. 6.

*Coryphocera laeta*, Burm. Handb. iii. p. 223.

*Heterorhina laeta*, Westw. Arc. Ent. i. p. 137, pl. 34,  
f. 2. (details).

*Hab.*—Java (B. M.), Siam (Coll. Wall.), Sylhet (Coll. Parry).

Sub.-fam. II. GYMNETINÆ.

Gen. III. CLINTERIA, Burmeister.

A group of small-sized dull-coloured *Cetoniae*, not common in the Archipelago. *C. secpustulata* was, however, very abundant in the island of Timor. They have evidently spread from the continent into the large islands at the time of their union, since they are not found in Celebes, or any of the islands further east, except the closely connected chain which extends from Java to Timor.

1. CLINTERIA ATRA, Wiedemann.

*Macronota atra*, Wied. Zool. Mag. ii. p. 84.

*Gymnetis funeraria*, Gory & Perch. Mon. Cet. p. 375,  
pl. 76, f. 5

*G. biguttata*, Gory & Perch. *ib.* p. 374, pl. 76, f. 4.

*Hab.*—Java (B. M.).

2. CLINTERIA FLAVOMARGINATA, Wiedemann.

*Macronota flavomarginata*, Wied. Zool. Mag. ii. p. 84.

*Hab.*—Java (B. M.).

Very near *C. atra*, but smaller, and distinguished by its broad yellow margins to the elytra.

3. CLINTERIA SEXPUSTULATA, Gory & Percheron.

*Gymnetis secpustulata*, Gory & Perch. Mon. Cet. p. 376,  
pl. 77, f. 1.

*Hab.*—Timor (Coll. Wall.).

An abundant species in Timor, and very variable in its markings. Found in foliage and in flowers.

## 4. CLINTERIA EGENS, Vollenhoven.

*Clinteria egens*, Voll. Tijd. voor Ent. vii. p. 152.

“Nigra, subopaca, elytrorum macula pallide ochracea.  
Long. 15. mm.”

*Hab.*—Borneo (Leyden Mus.), Penang (Coll. Lamb).

I have some hesitation in referring Mr. Lamb's specimen to this species, as Vollenhoven's description is by no means precise; the elytra are rather finely and regularly punctate-striate; whereas Vollenhoven says:—“Elytres à lignes de gros points enfoncés mais peu profonds.” It is allied to *C. flavonotata*, Gory & Perch.

## 5. CLINTERIA BOWRINGII, n. s.

Nigra, opaca, elytris singulis macula magna laterali roseo-cinnabarina.

Black; clypeus quadrate, elongate, emarginate; thorax with coarse scattered punctures on the disk, thickly rugose—punctured on the sides; scutellum small, triangular, very narrow; elytra punctate-striate, the spaces elevated, a large irregular roundish spot on each side extending from about the middle of the lateral margin two-thirds across the elytra of a bright rosy cinnabar red; beneath shiny black, sternum with scattered coarse punctures, its process straight, conical, acute; anterior tibiæ with two acute lateral spines.

Length 7 lines.

*Hab.*—Java (B. M.).

## 6. CLINTERIA MALAYENSIS, n. s.

Nigra, subtus nitida, supra opaca subænea; thorace punctis quatuor, elytris singulis maculis duabus flavis, una magna, altera apicali minore.

Black, very brilliant beneath, opaque and slightly brassy above; clypeus as in *C. Bowringii*; thorax faintly punctured on the sides, two distinct yellow spots on the disk, and two or four minute ones near the margin; scutellum very small as in *C. Bowringii*; elytra punctate-striate, a large rotundate marginal spot notched on the inner side below, and a smaller apical spot, pale

ochre yellow, pygidium opaque, faintly wrinkled; a small spot on the side of the sternum, and others on the margin of the two first abdominal segments, whitish-yellow; sternal process conical, blunt; thighs, coxæ and sternum coarsely rugose-punctate; spines of anterior tibiæ very stout.

Length  $6\frac{1}{2}$  lines.

*Hab.*—Penang (B. M.).

Very near *C. flavonotata*, but I think distinct; that species is rather broader, entirely wants the apical spot, the surface of the sternum is more irregularly punctate, the elytra are deep opaque black, and more coarsely punctate, and the trochanters of the hind legs are strongly spined.\*

#### 7. CLINTERIA CINCTIPENNIS, Gory & Percheron.

*Gymnetis cinctipennis*, Gory & Perch. Mon. Cet. p. 376.  
pl. 77, f. 2.

*Hab.*—Java.

I have not seen a specimen of this species. It may be a variety of *C. scapustulata* or *C. atra*.

#### 8. CLINTERIA DIVES, Vollenhoven.

*Clinteria dives*, Voll. Tijd. voor Ent. vii. p. 153.

“Nigra, supra opaca, elytris striatis, subtus subnitida, elytrorum macula magna transversali aurantiaca. Long. 16 mm.”

*Hab.*—Borneo and Biliton (Leyden Mus.).

#### 9. CLINTERIA VIDUA, Vollenhoven.

*Clinteria vidua*, Voll. Tijd. voor Ent. vii. p. 153,  
pl. 9, f. 6.

“Nigra, supra opaca, subtus nitida; elytrorum maculis duabus magnis subovalibus, lunulisque duabus lacteis. Long. 17 mm.”

*Hab.*—Sumatra (Leyden Mus.).

\* *Gymnetis flavonotata*, Gory & Perch. Mon. Cet. p. 377, pl. 77, f. 3, from Tenasserim, falls just beyond the geographical limits assigned to this paper. The type is in the Oxford Museum, and by the kindness of Prof. Westwood, I have been enabled to compare it with the present species.

## 10. CLINTERIA FLORA, n. s. (Pl. XI. fig. 4).

Supra nigro-brunnea; thorace punctis duobus et macula marginali fulvo-luteis; elytris singulis fascia lata longitudinali brunneo-rufa, punctis duobus discalibus, maculisque marginalibus et apicalibus fulvo-luteis.

Black; clypeus quadrate, emarginate, lobes rounded, coarsely punctate; thorax deep olive-brown, finely punctate, the sides rounded, an irregular marginal patch not reaching the outer angle, and two small oval spots on the disk, orange-ochre; scutellum very small, triangular; elytra punctate-striate, the punctures large and shallow, appearing as semicircular impressions in some lights, deep olive-brown, a broad longitudinal band on the middle of each elytron from the base to near the apex brownish-red, an elongate apical spot, a smaller one on the outer margin nearer the apex than the base, and a small discal double spot, orange-ochre; pygidium black, hairy, and with a small yellowish spot on each side; beneath are patches of orange on the margins of the sternum, the coxæ of the hind legs, and on the last abdominal segment; the sternal process curves outwards and is rounded at the end; head and legs with rufous hairs; anterior tibiæ with two strong lateral teeth.

Length 7 lines.

*Hab.*—Flores (Coll. Wall.).

A pretty species, perhaps nearest to *C. mærens*, from Ceylon.

## Gen. IV. AGESTRATA, Eschscholtz.

Although these fine insects are so common in collections, I never myself met with them. They are strictly confined to the Indian region of the Archipelago.

## 1. AGESTRATA ORICHALCA, Linnæus.

*Scarabæus orichalcus*, Linn. Amœn. Acad. vii. p. 504.

*Scarabæus chinensis*, Auct.

*Cetonia chinensis*, Herbst, iii. p. 199, pl. xxviii. f. 2.

*Agestrata chinensis*, Gory & Perch. Mon. Cet. p. 305, pl. 59, f. 2.

- A. Dehaan*, Gory & Perch. *lib. cit.* p. 304, pl. 59, f. 1.  
*Cetonia nigrita*, Fabr. *Syst. El.* ii. p. 136, var.  
*Agestrata Withillii*, Hope, *Proc. Ent. Soc.* 1841, p. 33.  
*A. gagates*, Hope, *l. c.*  
*Hab.*—China, India, Penang, Borneo, Java.

2. AGESTRATA LUZONICA, Eschscholtz.

- Agestrata luzonica*, Eschsch. *Zool. Atlas*, p. 13, pl. 4, f. 8.  
*A. splendens*, Gory & Perch. *Mon. Cet.* p. 306,  
 pl. 59, f. 3.  
*Hab.*—Philippine Islands (Coll. Parry, B. M.).

3. AGESTRATA PARRII, n. s.

Sub-convexa, læte viridis, subtus viridi-cuprescens;  
 tibiis cupreis, apicibus nigris; tarsis rufo-cupreis,  
 nigro-terminatis; antennis nigro-rufis.

Green, not so metallic as *A. orichalca*, rather more convex; the head and clypeus less coarsely punctured; thorax less rugose, and with fine scattered punctures; elytra somewhat smoother; beneath, the sternal process is narrow, bent in, not dilated; the tibiæ are coppery, with the apical spines black, the tarsi dark coppery, with the apex of each joint black; the antennæ dark purple-copper or rufous; anterior tibiæ with the second tooth below the apex, small.

Length 27 lines; width 12 lines.

*Hab.*—Borneo (Coll. Parry, B. M.).

This fine species appears to differ sufficiently from the other two, to be considered distinct.

Gen. V. LOMAPTERA, Gory & Percheron.

This fine genus is especially characteristic of the Moluccas and New Guinea, where the species are often very abundant. They frequent the flowers of palms, or the sap which flows from their cut flower-stalks, and are sometimes found on foliage. They were also sometimes very abundant in new clearings, flying about near the ground, and settling on rotten wood. In the Kaioa Islands, *Lomaptera pygidialis* was seen flying about by



hundreds. In the great islands of the Indo-Malayan region, on the contrary, I never saw a specimen of the genus, and this fact will illustrate its peculiar distribution, as well as the localities of the several species.

1. *LOMAPTERA STRIATA*, n. s. (Pl. XI. fig. 8).

Viridis, lata, sub-convexa; pygidio conoideo, transverso, compresso, vix carinato; thorace punctato; elytris punctato-striatis; tarsis viridi-cupreis.

Broad, slightly convex; head deeply punctate, thorax finely punctate throughout, more deeply at the sides, lobe rather short, entire; scutellum visible, elongate, triangular; elytra distinctly punctate-striate, with a few scattered punctures, gradually rounded at the sides, where the punctures merge into coarse transverse striæ, apex rather deeply notched; pygidium broad and short, terminating in an obtuse transverse keel, not projecting beyond the apex of the elytra. Anterior tibiæ with two strong lateral teeth in the female, in the male much smaller, the second almost obsolete; posterior tibiæ stout, with a notch on the outside about one-third from their apex; sternum with the sides punctured, the sternal process much curved, stout at the base, and ending in a rather acute point, in some specimens with a boss or tubercle between the middle pair of legs. Colour entirely green or bronzy-green, the tarsi more bronzy, the club of the antennæ bronzy-black, and the sternal spine bronzy.

Length 15-17 lines.

*Hab.*—Borneo (Coll. Wall. ♀.), Penang (Coll. Lamb, ♀.) (B. M. ♂.)

A fine species, but differing much from the usual type of *Lomaptera* by the sub-convex striated elytra which entirely cover the abdomen. It must be considered the most aberrant form of the genus.

2. *LOMAPTERA TIMORIENSIS*, n. s.

Nigra, polita; thoracis disco tenuiter punctato; elytris lateribus distincte, disco obsolete punctato-striatis; pygidio conoideo, obtuso.

Head punctate; thorax smooth, polished, very finely

punctate on the disk, coarsely on the sides; scutellum distinct, triangular; elytra punctate-striate at the base and sides, obscurely striate with a few obsolete raised points on the disk, transversely striate at and near the apex; pygidium very obtuse, transversely conoidal; anterior tibiæ with two lateral teeth, sternal spine moderate, slightly curved. Colour entirely black, the elytra sometimes pitchy and more distinctly punctate-striate.

Length 10-12 lines.

*Hab.*—Timor (Coll. Wall. ♂, ♀).

Very near *L. pulla*, (*ebena*, Burm.), but broader, less smooth, less parallel, and has a larger scutellum.

### 3. LOMAPTERA PULLA, Schönherr.

*Cetonia pulla*, Schönh. Syn. Ins. I. iii. App. p. 46 (1817).

*C. nigrita*, Frölich, Naturf. xxvi. p. 110 (1792), *ib.* xxix. pl. iii. fig. 5 (*nec* Fabr., 1775).

*Lomaptera cupripes*, Waterhouse, Proc. Ent. Soc. 1841, p. 27.

*L. nigroænea*, Waterhouse, *l. c.*

*L. viridiænea*, Gory & Perch. Mon. Cet. p. 309, pl. 60, f. 5.

*L. ebena*, Burm. Handb. iii. p. 315.

These forms, which vary much in size and colour, all have the scutellum visible, the hind tibiæ with a distinct notch forming a small tooth about one-third from the apex, and the sternal spine curved from the base. The surface is very glossy and smooth, either bronzy black, purple black, or brassy green; the thorax is punctured or striated only at the sides, and the elytra are faintly punctate and somewhat striate towards the sides, and more deeply striate at the apex. *L. cupripes* is a fine variety of a rich brassy green, with the legs and the shoulders and apex of the elytra bronzy purple. The Penang specimens are smaller and glossy purple, but offer no distinctive characters. The Hongkong specimens are very fine and glossy, with the punctuation of the elytra almost entirely wanting. Some of the small Indian specimens, on the contrary, have the elytra very much punctured, and there seems to be every form between these extremes. The anterior tibiæ are spined as in *L. agni*.

*Hab.*—Philippine Islands (Cuming), Tenasserim (Oxford Mus.), Penang (Coll. Lamb), China (Bowring), India (B. M.).

Schaum, Lacordaire, and Thomson adopt *nigrita*, Frölich, as the name for this species. Frölich however quotes the name from Fabricius (Syst. Ent. p. 43), on referring to which it is evident that he gave that name to the black variety of *Agestrata orichalca*. Frölich's description is very detailed, and no doubt refers to this species, but the name must drop, and Schönherr's name *pulla* be adopted. The description of *pulla* is good, and refers undoubtedly to this species. I have compared the type specimen of *L. viridiænea* in the Oxford Museum, and find that it must be referred here.

#### 4. LOMAPTERA AGNI, n. s.

*L. pullæ* simillima. Viridi-ænea vel purpurea, subtus magis purpurea, nitidissima; thorace valde lobato, scutellum tegente; elytris lateribus rugosis; corpore subtus lævi, processu sternali longo, recto, apice incurvato.

Very like *L. pulla*; brassy or purple green, very brilliant; thorax flat above, the sides rugose striate, the lobe much produced, entirely concealing the scutellum; elytra flat, the sides somewhat wrinkled and finely rugose-striate, entirely without punctures, the apex somewhat emarginate, the suture produced into a short spine; beneath with a few scattered striations on the sides of the body and abdomen, the sternal process very flat, straight, incurved only at the end, but rather shorter and more curved in the male; the hind tibiæ without a marginal tooth, the anterior tibiæ with two lateral teeth, rather stronger in the female.

Length 15 lines.

*Hab.*—Penang (Coll. Lamb and Wall.).

A beautiful species, very close to some of the varieties of *L. pulla*, but always distinguishable by such structural characters as the concealed scutellum, the smooth hind tibiæ, and the straight sternal spine.

## 5. LOMAPTERA VIRENS, Hombron and Jacquinet.

*Lomaptera virens*, Homb. et Jacq. Voy. au Pol. Sud. Col. pl. 9. f. 6.

? *L. valida*, Gory and Perch. Mon. Cet. p. 308, pl. 60. f. 2.

*Cetonia plana*, Schönh. Syn. Ins. I. iii. App. p. 57.

*Hab.*—Amboyna, Ceram (Coll. Wall., B.M.).

Very abundant, flying about the ground in newly cleared forest. Gory and Percheron's figure is quite unrecognizable and can hardly represent this species.

## 6. LOMAPTERA D'URVILLII, Burmeister.

*Lomaptera D'Urvillii*, Burm. Handb. iii. p. 315; Homb. et Jacq. Voy. Pol. Sud. pl. 9, f. 7.

*Hab.*—New Guinea (Coll. Parry, B. M.), ? Amboyna (H. & J.).

Thorax smooth, elytra punctate-striate near the base, transversely wrinkled towards the apex.

Messrs. Hombron and Jacquinet say this was the most common species of *Lomaptera* at Amboyna. I cannot help thinking that this remark should apply to *L. virens*, which I found very abundant at Amboyna, but I saw nothing of *L. D'Urvillii*. In the British Museum Catalogue New Guinea is given as the locality which seems more probable.

## 7. LOMAPTERA LATREILLII, Gory &amp; Percheron.

*Lomaptera Latreille*, Gory & Perch. Mon. Cet. p. 307, pl. 60, f. 1; Thoms. Mus. Scient. p. 34.

Rather larger than *L. olivacea*, head and thorax more punctate, elytra covered with fine short transverse striae except at the base. Coxæ and femora of fore legs clothed with rufous hairs. Anterior tibiæ spined in both sexes as in *L. olivacea*.

*Hab.*—Kaioa Islands, Ternate (Coll. Wall., B. M.).

Abundant at palm sap in these islands, and probably also in Makian and Tidore, which lie between them. Mr. Thomson says he has determined this to be the true *L. Latreillii*, by an examination of the type specimen;

Messrs. Gory and Percheron's description and figure will apply equally well, or even better, to *L. olivacea*.

8. LOMAPTERA RUGATA, Hombron & Jacquinot.

*Lomaptera rugata*, H. & J. Voy. au Pol. Sud. Col. pl. 9, f. 8.

“Læte viridis, nitida; clypeo profunde emarginato; elytris fere parallelis, punctis impressis strigis transversalibus minutis numerosissimis.” (Homb. et Jacq.).

*Hab.*—Solomon Islands (H. & J.), New Hebrides (Coll. Parry).

Major Parry's specimen of this species is very close to *L. Latreillii*, but smaller and of a more vivid green colour. The thorax and base of the elytra are much more strongly and closely punctured. The clothing of rufous hair beneath is more dense, the sternum is more distinctly punctured, and the under surface of the pygidium in the female is broader. It agrees very well with the figure and description above quoted.

9. LOMAPTERA ESERALDA, n. s.

Intense viridis; thorace lævi, lateribus punctatis; scutello distincto; elytris basi lævibus, deinde punctatis et rugoso-striatis; processu sternali elongato, incurvato.

Intense glossy green; clypeus deeply notched, punctate; thorax very smooth and glossy, punctate only at the margins; scutellum more visible than in *L. Latreillii*; elytra with the shoulders elevated, very smooth at the base, thence punctured and thickly covered with transverse wrinkles, pygidium of the female transverse, keeled not quite so sharply as in *L. Latreillii*; club of antennæ pitchy; claws and tibial spines black; sternal process longer than in *L. Latreillii*, acute, incurved at the tip; thighs of the fore legs with rufous hairs; anterior tibiæ with two strong lateral teeth.

Length 1 inch.

*Hab.*—“N. Hebrides, Solomon or Fidji Is.”, *Mac Gillyvray*. (B. M. ♀).

A very beautiful species, allied to *L. Latreillii*.

## 10. LOMAPTERA OLIVACEA, Thomson.

*Lomaptera olivacea*, Thoms. Mus. Scient. p. 34.

Male with one, female with two sub-apical teeth on the fore tibiæ. Female rather more distinctly punctured. Anterior coxæ and femora clothed with black hairs.

*Hab.*—Batchian, Gilolo, Morty Island (Coll. Wall., B. M.).

The Morty Island specimens are as much punctured in the male sex as the females of the other islands, and form a partial transition to *L. Latreillii*. This species was abundant at the flowers and sap of palm trees.

## 11. LOMAPTERA WALLACEI, Thomson.

*Lomaptera Wallacei*, Thoms. Arch. Ent. i. p. 426, pl. 16, f. 1.

Male with one small tooth, female with two teeth below the apex of the anterior tibiæ.

*Hab.*—Aru Islands (Coll. Wall., B. M.).

Rather plentiful, flying in hot places in the forest, and settling on rotten stumps.

## 12. LOMAPTERA WALLISIANA, Thomson.

*Lomaptera wallisiana*, Thoms. Mus. Scient. p. 34.

*Hab.*—Wallis Island (Thoms.), Cape York (Coll. Parry).

Very near *L. Wallacei*; differs by its smaller size and rather rounder thorax.

## 13. LOMAPTERA FASCIATA, Burmeister.

*Lomaptera fasciata*, Burm. Handb. iii. p. 313.

*Cetonia bifasciata*, Quoy & Gaim. Voy. de l'Uranie, 548, pl. 82, f. 5.

*L. bivittata*, Gory & Perch. Mon. Cet. p. 308, pl. 60, f. 3.

Male. Abdomen slightly furrowed, anterior tibiæ with two obsolete teeth below the apical spine.

Female. Anterior tibiæ with two acute teeth.

*Hab.*—New Guinea, Mysol, Waigiou (Coll. Wall.).

One specimen of this rare and beautiful insect was

captured in each of the above localities. It varies in the width of the bands and in the shade of green of the surface. It was observed flying swiftly near the ground, settling occasionally among rotten wood and dead leaves.

14. *LOMAPTERA AROUENSIS*, Thomson.

*Lomaptera arouensis*, Thoms. Arch. Ent. i. p. 428, pl. 16, f. 4.

*Hab.*—Ké Islands (not Aru Is.), (Coll. Wall., B. M.).

Found abundantly at the flowers of cocoa-nut palms on the beach at the Ké Islands; I possess a male specimen of a purple-bronze colour instead of the usual glossy olive-green.

15. *LOMAPTERA CERAMENSIS*, n. s.

*Viridi-ænea, tenue punctata, pedibus pilis rufis vestitis.*

Very near *L. arouensis*, Thoms., the same form and size, but rather greener in colour. It differs however by the thorax being more closely and uniformly punctured, by the basal two-thirds of the elytra being thickly covered with fine transverse striæ, which form themselves into lines of punctures towards the base, and by the hair on the coxæ, femora, and tibiæ being rufous, whereas it is black in the allied species.

*Hab.*—Ceram (Coll. Wall., B. M.).

A very closely allied species from Cambodia is described below.\*

\* *LOMAPTERA CAMBODIENSIS*, n. s.

*L. ceramensi* simillima, sed clypeo minus punctato, scutello minimo, elytris in medio tranverse subangulatis, et processu sternali magis recto.

Very close to *L. ceramensis*, rather narrower, colour more bronzy, elytra somewhat angulated, with a distinct elevation across the disk and another above the apical prominence; clypeus less closely punctured; scutellum very small, oblong; beneath, the sternal process is straight, not abruptly incurved at the tip as it is in *L. ceramensis*; hairs rufous as in that species.

Length 13 lines.

*Hab.*—Cambodia (Coll. Parry, ♂).

This species so closely resembles *L. ceramensis* that I was at first disposed to think there must be an error in its locality. A closer examination however has shown that there exist several slight but important structural characters which distinguish it from that species, and Major Parry assures me he obtained it from the late M. Mouhot's collections from Cambodia. It is however a curious example of such closely allied forms being so widely separated geographically.

## 16. LOMAPTERA CONCINNA, n. s. (Pl. XII. fig. 1).

Minor, nitide viridis; elytris punctato-substriatis; pedibus, antennis, clypei apice, et abdominis segmentis duobus ultimis, purpureo-cupreis.

Male. Form of *L. ceramensis*; head rather closely punctured; thorax very smooth, punctate only near the margins, the middle lobe distinctly bifid; scutellum visible; elytra rather abruptly deflexed at the sides, the base smooth, the disk with lunate punctures disposed in somewhat irregular striæ, the apical half of the margin with deep transverse striæ, the suture near the apex abruptly raised. Anterior tibiæ with a strong tooth below the apical spine, sternal process slightly curved upwards, pygidium transversely keeled, its lower surface less than half the upper, abdomen deeply furrowed.

Above, pure glossy green, the apex of the clypeus coppery red; antennæ entirely rufous copper; legs entirely purplish copper; pygidium and the adjoining segment of the abdomen rich purple copper.

Length 11 lines.

*Hab.*—Aru Islands (Coll. Wall., ♂).

A single specimen only of this species was obtained.

## 17. LOMAPTERA VALIDIPES, Thomson.

*Lomaptera validipes*, Thoms. Arch. Ent. i. p. 427, pl. 16, f. 2.

Male, with the outer edge of the fore tibiæ smooth; in the female one-toothed. The male has (sometimes?) the front of the clypeus and the extremity of the abdomen rufous.

*Hab.*—Aru Islands, New Guinea (Coll. Wall., B. M.).

A fine species, and uncommon.

## 18. LOMAPTERA XANTHOPUS, Boisduval.

*Lomaptera xanthopus*, Boisd. Faune de l'Océanie, ii. p. 225, Col. pl. 7, f. 3, ♂.

Anterior tibiæ of male smooth, of female with one small tooth.

*Hab.*—New Guinea, Mysol (Coll. Wall., B. M.).

Very few specimens were obtained of this rare species.



## 19. LOMAPTERA PYGIDIALIS, Thomson.

*Lomaptera pygidialis*, Thoms. Mus. Scient. p. 35.

*Hab.*—Kaioa Island (Coll. Wall., B. M.).

The anterior tibiæ have a single strong tooth in the female, and a very obsolete one in the male.

Abundant at certain seasons, and would probably be also found in Makian, and perhaps in Tidore and Ternate.

## 20. LOMAPTERA BATCHIANA, Thomson.

*Lomaptera batchiana*, Thoms. Mus. Scient. p. 35.

*Hab.*—Batchian, Gilolo, Morty Is. (Coll. Wall., B. M.).

This species differs from *L. pygidialis* by its less punctured and striated upper surface, and by the pygidium of the female being much more produced and compressed. The specimens from Morty Island show a further slight difference in the form of the pygidium, but are not sufficiently marked or definite to be described as specifically distinct. Both species were abundant at the flowers and sap of palms.

## 21. LOMAPTERA AUSTRALIS, n. s.

*Læte virens, nitida, elytris tenuissime transverso-striatis: mas, pygidio conoideo, tibiis anterioribus inermibus.*

Male. Form of *L. batchiana*; bright glossy green or golden-green; thorax very finely punctured in the middle, more coarsely at the sides, anterior angles acute; elytra finely transversely-striate, the base smooth. The pygidium regularly conoidal, finely rugose-striate; abdomen deeply furrowed beneath, outer edge of anterior tibiæ quite smooth; sternal process straight, slightly divergent, scarcely incurved at the tip.

Length 13-15 lines.

*Hab.*—Cape York (Coll. Parry), Lizard Island (B. M.).

The Lizard Island specimens are larger and more golden, but otherwise do not differ.

## 22. LOMAPTERA PUNCTATA, Montrouzier.

*Lomaptera punctata*, Montr. Ann. Sc. Phys. &c. de Lyon, ser. 2, vol. vii. p. 26.

*Hab.*—Woodlark Island (B. M., ♂).

Allied to *L. batchiana*, but jet black and glossy, the thorax finely and regularly punctate, and the elytra covered throughout with fine rugose transverse striæ.

## 23. LOMAPTERA ADELPHA, Thomson.

*Lomaptera adelpha*, Thoms. Arch. Ent. i. p. 428, pl. 16, f. 3.

“Pygidium apud ♂ in medio longitudinaliter elevatum.”

“Diffère de la *L. validipes* par les caracteres que voici: Moins allongée. Elytres non échancrées à l'extrémité, ayant deux bosselures postérieurement; point de granulations sur les bords latéraux; sillonnées transversalement en arrière; lisses antérieurement; la ponctuation se changeant ensuite en sillons transversaux confluent.” (Thomson.)

*Hab.*—Aru Islands (Coll. Thoms. ♂?).

This specimen was obtained by me in the Aru Islands, but was overlooked, and thus passed into the collection of Mr. Thomson.

## 24. LOMAPTERA PAPUA, Guérin.

*Lomaptera papua*, Guér. Voy. Coquille, Zool. pl. 3, f. 11; Gory & Perch. Mon. Cet. p. 309, pl. 60, f. 4, ♂.

“Obscure viridis, nitidissima; fronte bicornuta; thorace postice producto, scutellum tegente. Elytris elongatis, postice sub-attenuatis, subtilissime transversim rugosis, punctatis. Corpore subtus viridi, sternum antice productum, pedibus concoloribus. Long. 34 mill.” (Guérin.)

Male with the anterior tibiæ unarmed and the pygidium conical. Female with one tooth near the end of the tibiæ, the pygidium transversely rhomboidal, with a vertical keel.

*Hab.*—Waigiou (Coll. Wall. ♀), New Guinea (Paris Mus. ♂).

I obtained a single specimen only of this species.

## 25. LOMAPTERA INERMIS, n. s. (Pl. XII. fig. 2).

Viridis; capite, pedibus, pygidio et elytrorum apice viridi-rufis; tibiis rufis, anterioribus inermibus.

Female. Form of *L. papua*, metallic green; antennæ, fore part of the head, legs, and the extremity of the body and elytra, rufous, shading in to the green of the body. Thorax very finely punctate and transversely striate at the sides, scutellum concealed, hinder part of the elytra covered with very fine transverse striæ; pygidium of the same form as in *L. papua*, but the keeled portion rather more protuberant below; anterior tibiæ without any tooth on the margin.

Length 14 lines.

*Hab.*—New Guinea (Coll. Wall. ♀).

I obtained only a single specimen of this species.

## Sub-fam. III. MACRONOTINÆ.

## Gen. VI. CLEROTA, Burmeister.

The only species of this genus is rare, and was not met with by myself.

## 1. CLEROTA BUDDA, Gory &amp; Percheron.

*Macronota budda*, Gory & Perch. Mon. Cet. p. 310, pl. 61, f. 1.

*M. vittigera*, Westw. Arc. Ent. i. pl. 28, f. 6.

*Hab.*—Penang (Coll. Lamb, ♀), Java (Coll. Parry, B. M.).

The Penang specimens agree with those from India as figured by Westwood.

## Gen. VII. PLECTRONE, n. g.

Clypeus broad, but slightly bilobed; club of antennæ moderate, scarcely elongate in the male; prothorax narrow in front, the sides angulated, nearly parallel or concave behind, base much narrower than the elytra, the middle produced into a rounded lobe, the surface rounded and but slightly furrowed longitudinally; scutellum large, triangular; elytra much undulated, depressed along the suture, and with a large impressed space about

the middle; legs very long, the anterior tibiæ nearly as in *Chalcothea*, the posterior tibiæ of the male dilated, and with a large curved spur on the inner edge, near the apex; sternum flat, its median process short, truncate, and slightly rounded.

This genus differs from *Chalcothea* in the form of the thorax and elytra, and in the remarkably spurred hind tibiæ of the males.

1. PLECTRONE NIGROCÆRULEA, Waterhouse.

*Macronota nigrocærulea*, Waterh. Proc. Ent. Soc. 1841, p. 27, ♀.

*Chalcothea Barrotiana*, Burm. Handb. iii. p. 319, ♂.

*Hab.*—Philippine Islands (Coll. Parry, B. M.).

A male from the Philippines, in the collection of Major Parry, agrees with Burmeister's description, but the impression of the elytra is not striated, and the whole surface is exceedingly smooth and glossy. Mr. Waterhouse's type specimen in the British Museum is blue-black, but otherwise agrees in form and all other details. This species has the thorax almost as distinctly sulcate as in *Chalcothea*.

Length  $13\frac{1}{2}$  lines.

2. PLECTRONE TRISTIS, Westwood. (Pl. XIII. fig. 1).

*Macronota tristis*, Westw. Arc. Ent. i. p. 104, pl. 28. f. 5.

*Hab.*—Java (B.M. ♀); Penang (Coll. Lamb, ♂, ♀).

This species varies from brassy-green to blue-black. The male has the hind tibiæ much dilated, and armed with a short spur almost the shape of a ploughshare; and in this sex the clypeus is dilated in front and almost entire. In other respects Mr. Westwood's description is very accurate. The nearly flat thorax, the striated impression on the elytra, the entire surface slightly roughened with minute punctures, and the different form of the spur, distinctly separate this species from its Philippine ally.

Length 16 lines.

Gen. VIII. CHALCOTHEA, Burmeister.

The species of this beautiful group were generally found flying near the ground, in the sunshine, and set-

ting on rotten wood. They were sometimes tolerably abundant, but difficult to capture. They are confined to the Indo-Malayan region.

1. *CHALCOTHEA SMARAGDINA*, Gory & Percheron.

*Macronota smaragdina*, Gory & Perch. Mon. Cet. p. 311, pl. 61, f. 2.

*Hab.*—Penang, Malacca (Coll. Wall., B. M.), Java? (Coll. Parry, B. M.).

Gory and Percheron give Borneo as the locality of this species. All my specimens from Borneo have the short sternal process and lighter colouring of *C. resplendens*. Major Parry and the British Museum Collection have specimens labelled Java, but I consider this locality somewhat uncertain; these specimens differ from those of Penang, in their more golden green colour, and the rather broader sternal process slightly enlarged at the point.

2. *CHALCOTHEA AFFINIS*, Vollenhoven.

*Chalcothea affinis*, Voll. Mem. Ent. i. p. 23, pl. ii. f. 2.

*Hab.*—Borneo (Coll. Wall.).

This species may be at once distinguished from *C. resplendens* by its short rounded sternal process. It is in other respects almost exactly like that species.

3. *CHALCOTHEA RESPLENDENS*, Gory & Percheron.

*Macronota resplendens*, Gory & Perch. Mon. Cet. p. 311, pl. 61, f. 3.

*Hab.*—Java (Coll. Parry).

A smaller and darker coloured species than its two allies.

Gen. IX. *MACRONOTA*, Hoffmanssegg.

This genus is very characteristic of the Indo-Malayan region. The larger species have the habits of *Chalcothea*, while the smaller ones frequent palm blossoms, or are found occasionally on foliage.

## 1. MACRONOTA DIARDI, Gory &amp; Percheron.

*Macronota Diardi*, Gory & Perch. Mon. Cet. p. 313,  
pl. 61, f. 5.

*Hab.*—Borneo, Sumatra, Malacca, Penang (Coll. Wall., B. M.)

This handsome species is rather common in newly cleared forest, flying in the hottest sunshine, close to the ground, and settling on dry and decaying wood.

## 2. MACRONOTA TRISULCATA, Gory &amp; Percheron.

*Macronota trisulcata*, Gory & Perch. Mon. Cet. p. 312,  
pl. 61, f. 4.

*Hab.*—Java (Coll. Parry, B. M.).

This fine species appears to be absolutely restricted to the Island of Java.

## 3. MACRONOTA ACICULATA, Vollenhoven.

*Macronota aciculata*, Voll. Tijd. v. Ent. vii. p. 153.

“Viridi-cuprea, elytris olivaceo-viridibus, humeris vinosis, prothorace antice tuberculato, elytrorum parte externa aciculata.” (Voll.)

*Hab.*—Java.

## 4. MACRONOTA LUDEKINGII, Vollenhoven.

*Macronota Ludekingii*, Voll. Tijd. v. Ent. vii. p. 154,  
pl. 10, fig. 1.

“Olivaceo-viridis, nitida, elytrorum margine laterali usque ad medium rubro, exinde ad suturam viridi, serrato.” (Voll.)

*Hab.*—Sumatra.

## 5. MACRONOTA CELEBENSIS, n. s. (Pl. XI. fig. 5).

Rufo-castanea, glaberrima, corpore et abdomine, thorace et elytris in medio, antennis et tarsi nigris, scutello, elytrorum singulorum macula in medio alteraque ad apicem, fasciisque subtus lateralibus luteis.

Clypeus ovate, notched in front, elevated between the eyes, with a few scattered punctures; thorax dilated in the middle, the hinder angles acute, moderately lobed behind, convex, with deep scattered punctures about the anterior angles, and a small group in the middle behind;

scutellum rather large, triangular, striated at the base; elytra with a depression round the scutellum which extends on to the base of the thorax, shoulders elevated, a depression in the middle near the suture where there are five striæ, the three inner ones reaching nearly to the apex; at the sides are a few deep scattered punctures disposed in two rows; sternum coarsely punctured, its anterior process short, compressed, and obliquely truncate; abdomen with scattered punctures; anterior tibiæ with two acute lateral spines; pygidium densely hairy above, transversely striate beneath.

Head rufous, the base between the eyes and antennæ black; thorax black, the lateral margins broadly rufous; scutellum black, with an ovate yellow spot; elytra rufous, with a broad sutural band, black at the base, dusky towards the apex, two median and two apical yellow spots; coxæ, femora, and tibiæ rufous, tarsi and tips of the tibiæ black; sternum black, with a yellow lateral band on its anterior margin; abdomen black, with four narrow yellow bands bordering the segments on each side. Hairs rufous, those on the pygidium and apex of abdomen black. Male? with a pale yellow round spot on the pygidium.

Length 10 lines.

*Hab.*—Tondano, N. Celebes (Coll. Wall.).

A very distinct species.

6. *MACRONOTA CASTANEA*, n. s. (Pl. XI. fig. 6).

Nigra, nitida; elytris disco late castaneis, lateribus sparse punctatis, postice ad suturam striatis; subtus pilis nigris vestita.

Allied to *M. celebensis*, same form, and the head, thorax, and elytra punctate and striate in the same manner, except that the outer short stria on the elytra is wanting. The scutellum with a small group of striæ behind. Entirely black, with the exception of the elytra, which are dark chesnut, with a narrow black border. The whole insect very glossy.

Length 9 lines.

*Hab.*—Macassar, Celebes (Coll. Wall.).

7. *MACRONOTA LUCTUOSA*, Vollenhoven.

*Macronota luctuosa*, Voll. Mem. Ent. i. p. 25, pl. ii. f. 4.

*Hab.*—Amboyna, Ceram (Coll. Wall.).

This very distinct species is abundant in Ceram and Amboyna, where it seems to replace the various forms of *M. regia*, which are spread over almost all the rest of the Archipelago.

8. *MACRONOTA NIGERRIMA*, n. s.

Nigra; clypeo minime emarginato; thorace convexo, subheptagono, bituberculato, rugoso-punctato; elytris basi latis, abrupte attenuatis, ad suturam depressis, pone humeros elevatis et foveolatis, lateribus transverse rugosis, prope suturam valde striatis.

Black, shining, clypeus scarcely emarginate, finely punctate, head somewhat tubercled between the eyes; thorax heptagonal, convex, coarsely punctured, with a median furrow, and a polished eminence on each side of it; elytra broad at the base, abruptly sinuate below the shoulders, sides nearly parallel, apex rounded, the region of the suture depressed and deeply striate; at the shoulder a short curved ridge, within which is a depression, the sides transversely rugose; beneath coarsely punctate, scantily clothed with pale yellowish hairs; anterior tibiæ broad, with two very stout teeth below the apical spine; sternal process short, rounded.

Length  $7\frac{1}{2}$  lines.

*Hab.*—Menado, N. Celebes (Coll. Parry).

This curious species seems to come nearest to *M. luctuosa* from Ceram, from which, however, it is very distinct.

9. *MACRONOTA VIDUA*, n. s.

Nigra; thorace creberrime punctato, linea mediana punctisque quatuor albis; elytris punctatis et striatis, maculis duodecim parvis albis.

Allied to *M. luctuosa*; black, shining, clypeus with the sides rounded, moderately emarginate, coarsely punctate; thorax densely punctured, a short median line, a spot on the lateral margin, and at the anterior angle, white; scutellum with a small white spot; elytra with a humeral



elevation and a median ridge, the marginal region densely punctate and rugose, the sutural region behind closely striate, a spot on the margin behind the middle, one at the apex, two sutural and two humeral spots, white; pygidium with a central spot; anterior tibiæ with two lateral teeth; beneath punctured, the sides with broad white bands, the sternal process small, scarcely dilated.

Length 7 lines.

*Hab.*—Philippine Islands (B. M.).

Besides other differences, this species is distinguished from *M. luctuosa* by the antennæ and anterior edge of the clypeus being black instead of rufous.

10. *MACRONOTA GUTTULATA*, n. s.

*Nigra, elongata et attenuata; elytris costatis, punctis albis rotundatis sparsis decoratis.*

Black; head keeled between the eyes, coarsely punctate; clypeus elongate, the sides rounded, deeply notched; thorax smooth, considerably lobed behind, with scattered shallow impressions; scutellum elongate, triangular; elytra broad at the shoulders, much attenuated at the apex, faintly striate, an elevated ridge from the shoulder to near the apex, on each side from twenty to thirty small round white spots; anterior tibiæ strong, dilated, roughened, with a strong lateral tooth; under surface closely covered with coarse punctures; sternal process large, straight, compressed at the apex, obliquely truncate; sides of the body and abdomen with white bands.

Length  $8\frac{1}{2}$  lines.

*Hab.*—Philippine Islands (B. M.).

11. *MACRONOTA PATRICIA*, Gory & Percheron.

*Macronota patricia*, Gory & Perch. Mon. Cet. p. 320, pl. 63, f. 4.

*Hab.*—Java (B. M.).

A fine species, near the Indian *M. flavomaculata*.

12. *MACRONOTA CLATHRATA*, Gory & Percheron.

*Macronota clathrata*, Gory & Perch. Mon. Cet. p. 326, pl. 64, f. 5.

*Hab.*—Java.

I have not seen this species, which seems to be very near *M. patricia*.

13. *MACRONOTA REGIA*, Fabricius.

*Macronota regia*, Fab. Syst. El. ii. p. 159; Gory & Perch. Mon. Cet. p. 316, pl. 62, f. 3.

*M. fraterna*, Westw. Trans. Ent. Soc. 2nd ser. iii. p. 71, pl. vii. f. 5 (Philippines).

*M. Forsteni*, Voll. Mem. Ent. i. p. 24 (Celebes).

*M. venerea*, Thoms. Arc. Ent. i. p. 284 (Celebes).

*M. apelles*, Thoms. Mus. Scient. p. 36 (Batchian).

*Hab.*—Batchian, Gilolo, Ternate, Morty Island, Kaioa, Celebes, New Guinea, Mysol, Salwatty, Aru Islands (Coll. Wall.) ; Philippine Islands (B. M.).

Var. *malayana*. Thorax more coarsely and less closely punctured, stripes narrow and pale.

*Hab.*—Borneo, Sumatra, Penang (Coll. Wall.) ; Java (B. M.).

My extensive series of specimens from all the above localities shows that there is much variation in each locality, and no permanent characters between specimens from distinct localities, except in those from the western islands, which can, however, only be considered a local form. The Philippine form is not distinguishable from some Moluccan specimens.

14. *MACRONOTA VARIEGATA*, n. s. (Pl. XII. fig. 7).

Nigra, thorace tricarinato, interstitiis crusta rugosa cinereo-fulva vestitis; elytris sub-planis, nigro rubro et cinereo variegatis; subtus rude punctata, lateribus cinereo-aureis.

Black; clypeus a little emarginate, rugose punctate, with an ashy crust, keeled behind between the eyes; thorax with elevated median and lateral ridges, the rest of the surface covered with a rugose ashy crust; scutellum ashy, with a blackish median line; elytra with an elevated ridge from the shoulder to near the apex, and another in continuation of the lateral thoracic ridge, but vanishing about the middle of the elytra, yellowish-red, with three black spots on each side, and a black stripe from the arc at the humeral angle; between the ridges and the black spots are linear patches of the ashy rugose crust, and a patch of the same at the apex between the two black

subapical spots; beneath, the entire prothorax the sides of the sternum, and a broad band on each side of the abdomen, and the pygidium, golden ashy; the whole under surface much punctured, and with the legs clothed with pale yellowish hairs.

Length 8 lines.

*Hab.*—Penang (Coll. Wall.).

Near *M. cineracea*, Gory and Perch., in form, but very distinct in other characters.

15. *MACRONOTA CERVINA*, n. s. (Pl. XI. fig. 7).

Lata, plana, fulvo-cinerea; capite parvo, antice vix emarginato; thorace heptagono, carina mediana postice abbreviata, alterisque lateralibus conniventibus; elytris maenlis quatuor, striis duabus lateralibus alterisque basalibus nigris, pygidio maenlis duabus rotundatis nigris.

Fulvous ashy, flat; head small, keeled between the eyes, clypeus pitchy, punctured, scarcely emarginate; thorax small, heptagonal, punctured, the sides nearly parallel, somewhat incurved, posterior angle acute, a central polished keel from the head to a little beyond the middle, and two lateral ones meeting behind, but not reaching the posterior border, the edges also slightly elevated, black; scutellum large, triangular, with a basal pitchy spot; elytra very broad at the base, narrow behind, sides nearly straight, covered with wrinkled striæ which are parallel to the suture near the apex, with black spots and lines, namely, one subquadrate at the shoulder, one smaller near the apex, a line joining these on the side of the suture and an abbreviated line between them near the margin, a small spot near the outer angle of the thorax, a short line between it and the scutellum, and another below it nearer the suture, along which is a line interrupted above the middle; pygidium with an ovate oblique spot on each side; beneath yellowish ashy, the antennæ, tarsi, and lines on the tibiæ, and two hind pairs of femora, black; sternum very coarsely punctured, the sternal space very short, obtuse. Anterior tibiæ with one strong tooth below the apical spine.

Length  $6\frac{1}{2}$  lines.

*Hab.*—Malay Peninsula (Coll. Wall.).

16. *MACRONOTA CORTICALIS*, n. s.

Rufo-ochracea, pallida; capite linea nigra mediana, clypeo nigro integro; thorace grosse punctato; elytris planis valde striato-rugosis, maculis parvis quinque subquadratis nigris.

Form of *M. cervina*; pale rufous earthy; head punctate, with a black median line, clypeus black, dilated, the front edge entire; thorax heptagonal, moderately lobed, behind flat, with very coarse deep confluent punctures, three small black vertical lines in front, behind which are two small dots; scutellum elongate, deeply punctured; elytra flat, very coarsely and deeply rugose-striate, a spot on the suture just below the scutellum, one on the humeral angle, and one just above the apical angle with a smaller spot within it, black; beneath, the sternum squamulated with black, and a black spot on each side; abdomen coarsely punctured, with a lateral row of spots, and a median double row, that in the last two segments confluent, black; antennæ, tarsi, and tips of the tibiæ black; anterior tibiæ black with two lateral teeth.

Length 7 lines.

*Hab.*—Penang (B. M.).

17. *MACRONOTA THORACICA*, n. s. (Pl. XII. fig. 3).

Elongata; capite et thorace aureo-fulvo vestitis; elytris nigris, undulatis et carinatis, punctatis, singulis maculis quatuor fulvis; antennis pedibusque rufis.

Head golden fulvous, with a short black keel between the eyes, clypeus with the rounded sides black-edged, the slightly emarginate front rufous-edged; thorax fulvous, densely clothed with short rufous hairs, convex, semicircular in front, sides nearly parallel, hinder angles square, a semicircular middle lobe, the lateral and posterior edges black; scutellum fulvous, elongate, triangular, narrowed behind; elytra black, scantily clothed with rufous hairs, with a strong median and a shorter humeral keel, with scattered punctures at the base, transversely rugose at the sides, and striate in the middle sutural region, a large subquadrate spot on the suture in the middle, a curved spot at the apex, a rounded spot on the outer margin, and an elongate one below the humeral keel all fulvous, as also a large spot on the pygidium;

beneath black, punctured, the sides of the prothorax and sternum, and a band on the lower edge of each abdominal segment, pale golden fulvous; antennæ, femora, tibiæ, and tarsi pale rufous; anterior tibiæ with one small acute tooth below the terminal spine.

Length 9 lines.

*Hab.*—Tondano, N. Celebes (Coll. Wall.).

This very distinct species seems nearest to *M. philippinensis*. I obtained a single specimen, which appears to be a male, in the mountain district of North Celebes.

18. *MACRONOTA FLAVOPUNCTATA*, Blanchard.

*Tæniodera flavopunctata*, Blanch. Cat. Coll. Mus. Paris, i. p. 41.

“Supra nigra, subtus medio nigra, lateribus cinerea, thoracis vittis quinque maculisque duabus baseos, scapulis elytrorumque maculis octo aureis. Long. 14 mm.” (Blanchard).

*Hab.*—Philippine Islands (Paris Museum).

19. *MACRONOTA PHILIPPINENSIS*, Waterhouse.

*Macronota philippinensis*, Waterh. Proc. Ent. Soc. 1841, p. 27.

*M. auroguttata*, Burm. Handb. iii. p. 323.

*Hab.*—Philippine Islands (Coll. Parry, B. M.).

A very handsome species. One of the same form, and almost equally beautiful, from Siam and Cambodia, I describe below.\*

\* *MACRONOTA MOUHOTII*, n. s. (Pl. XII. fig. 4).

Nigra, creberrime punctata et dense hirsuta; thorace medio, scutello toto, elytris singulis maculis quatuor suturaque in medio, et pygidio macula rotundata, aureo-rufis.

Clypeus broad, somewhat dilated at the end, emarginate, a narrow keel between the eyes; thorax and elytra very closely punctate, and thickly clothed with black hairs; a stripe on each side of the head, diverging before the eyes, a broad median band on the thorax narrowed in the middle, the whole clypeus, two sub-triangular spots on the outer margin of each elytron, the upper one largest, and a central figure formed of a large anterior and smaller posterior sutural spot, united by a narrow stripe, a round spot on the pygidium, and several large irregular patches on the sides of the body and abdomen, all rich ochreous yellow. Tibiæ and tarsi pitchy, antennæ rufous pitchy.

Length 8 lines.

*Hab.*—Siam, Cambodia (Coll. Wall. ex Mouhot).

Nearest to *M. philippinensis*, but very distinct.

20. *MACRONOTA SUTURALIS*, Vollenhoven.

*Macronota suturalis*, Voll. Mem. Ent. i. p. 25, pl. 2, f. 3.

*Hab.*—Borneo, Sumatra, Penang (Coll. Wall.).

This species is abundant, and varies considerably in size and colouration. It is most nearly allied to *M. cineracea* of Java.

21. *MACRONOTA CINERACEA*, Gory & Percheron.

*Macronota cineracea*, Gory & Perch. Mon. Cet. p. 324,  
(*M. cinerea*) pl. 64, f. 3.

*M. quartata*, Gory & Perch. *ib.* p. 325, pl. 64, f. 4.

*Tæniodera cinerea*, Burm. Handb. iii. p. 328.

*Hab.*—Java (Coll. Parry, B. M., *Horsfield*).

22. *MACRONOTA ANTIQUA*, Gory & Percheron.

*Macronota antiqua*, Gory & Perch. Mon. Cet. p. 317,  
pl. 62, f. 4.

*Tæniodera antiqua*, Burm. Handb. iii. p. 328.

*Hab.*—Java (Coll. Parry, B. M.).

23. *MACRONOTA CARBONARIA*, n. s.

Nigra, obscura; clypeo elongato, emarginato; thorace heptagono, convexo, punctato, postice in medio rotundato; elytris sub-planis, basi dilatatis, postice attenuatis, striis quatuor abbreviatis; sterno convexo, processu parvo, mucronato.

Form of *M. antiqua*, but the posterior lobe of the thorax very short and rounded; clypeus elongate, coarsely punctured and deeply notched; thorax heptagonal, convex, coarsely punctate; scutellum large, triangular, the sides rather rounded; elytra flattish, broad at the base, behind abruptly narrowed, three fine striæ parallel to the suture, the two outer abbreviated, the sides sub-rugose, apex truncate; sternum very convex, punctate, the anterior portion keeled, and terminating in a small compressed mucronate process; anterior tibiæ with one lateral tooth; under-surface more or less clothed with pale yellowish hairs.

Length 9 lines.

*Hab.*—Java (Coll. Parry).

This species differs in essential points of structure from *M. antiqua* to which it seems most nearly allied. It may possibly be *M. anthracina*, G. & P., but their descriptions are quite inadequate for the separation of forms outwardly resembling each other, however distinct they may really be. It scarcely differs from the black form of *M. egregia*, (post, p. 559), except by the curious sharp sternal tubercle.

24. *MACRONOTA MONACHA*, Gory & Percheron.

*Macronota monacha*, Gory & Perch. Mon. Cet. p. 323,  
pl. 64, f. 1.

*Tæniodera monacha*, Burm. Handb. iii. p. 326.

*M. Lauerii*, Buquet, Ann. Soc. Ent. Fr. 1836, p. 204.

*Hab.*—Borneo, Singapore, Penang (Coll. Wall.); Java (B. M.).

This pretty species is found in the flowers of palms, but is not abundant.

25. *MACRONOTA ELONGATA*, Gory & Percheron.

*Macronota elongata*, Gory & Perch. Mon. Cet. p. 327,  
pl. 64, f. 6.

*Hab.*—Borneo, Singapore, Penang (Coll. Wall.).

Found in palm flowers, along with *M. monacha*.

26. *MACRONOTA MARMORATA*, n. s. (Pl. XII. fig. 5).

Ochraceo-cinerea, thorace macula subannulari nigra; elytris nigro-marmoratis et maculatis; pygidio maculis duabus nigris; antennis tibiis tarsisque nigris; tibiis posticis spinis duabus terminalibus dilatatis foliaceis.

Clypeus emarginate; head punctate, keeled between the eyes; thorax heptagonal, punctate, ashy-ochre, with a large horseshoe-shaped black mark and an interrupted median line; scutellum triangular, with a black sagittate mark; elytra broad, narrowed behind with an obtuse lateral ridge and slight sutural depression, four waved striæ parallel to the suture, the outer margins and numerous irregular markings and punctures ochre-ashy; pygidium crenate-striate, with two lateral oval spots;

beneath pale ochre, the middle of the sternum and abdomen pitchy black; legs pitchy, with the femora and tibiæ more or less irrorated with ochre; anterior tibiæ with two lateral spines; sternal process very short, obtuse; posterior tibiæ with the two upper terminal spines dilated and foliaceous.

Length  $9\frac{1}{2}$  lines.

*Hab.*—Sarawak, Borneo (Coll. Wall.).

A single specimen of this fine species was taken on foliage in the swampy forests of the Sadong River.

27. *MACRONOTA ANNÆ*, n. s. (Pl. XII. fig. 6).

*Nigra*, thorace marginibus et lineis duabus medianis divergentibus cinereo-fulvis; elytris fulvo-rubris, tertia parte apicali nigra, lineis tribus transversis et sutura apicali cinereo-aureis.

Black; clypeus punctured, emarginate; thorax heptagonal, convex, obscurely punctate, a narrow band commencing above each eye, and passing along the outer margin to above the scutellum, where it sends out a branch touching the median line of the thorax, and then curving out so as to approach the starting-point, fulvous-ashy; scutellum triangular, of the same colour, but black across the centre; elytra rather broad at the base, narrowed behind, the basal two-thirds red, with the suture black, and a bent ashy mark across the middle, the apical third black, with the suture and an apical and lateral transverse mark golden ashy; a vertical stripe of the same colour on the pygidium; beneath coarsely punctured, with numerous pale golden-ashy lateral stripes, and scattered pale yellow hairs, which more densely clothe the thighs; anterior tibiæ with two acute lateral teeth; sternal process tubercular, somewhat compressed.

Length  $7\frac{1}{2}$  lines.

*Hab.*—Penang (Coll. Wall.).

Nearest to *M. picta*, but very distinct.

28. *MACRONOTA PICTA*, Guérin.

*Macronota picta*, Guér. Rev. Zool. 1840, p. 81; Schaum, Ann. Soc. Ent. Fr. 1844, p. 369.

*M. aurantiaca*, Voll. Mém. Ent. i. p. 26, pl. ii. f. 5.

*Hab.*—Penang (B. M.); Singapore, Malay Peninsula, Borneo (Coll. Wall.); Java (B. M., Horsfield).



In some specimens from Borneo, the yellow of the elytra is replaced by black, the yellow-ashy markings being dull ochre; but I can see no other differences.

22. *MACRONOTA EGREGIA*, Gory & Percheron.

*Macronota egregia*, Gory & Perch. Mon. Cet. p. 319,  
pl. 63, f. 1.

*M. biplagiata*, G. & P. *ibid.* f. 2.

*M. anthracina*, G. & P. *ib.* p. 324, pl. 64, f. 2.

*Hab.*—Java (B. M., Horsfield).

A series of this species in the British Museum shows great variation. Some have the elytra with blood-red spots on the shoulder, or on the middle, and one has small transverse yellowish marks on the elytra, nearly as in *M. Rafflesiana*.

30. *MACRONOTA MALABARIENSIS*, Gory & Percheron.

*Macronota malabariensis*, Gory & Perch. Mon. Cet.  
p. 320, pl. 63, f. 3.

*Tæniodera malabariensis*, Burm. Handb. iii. p. 327.

*Hab.*—Ceylon, S. India (Gory); Sylhet (B. M.); Penang, Malacca (Coll. Wall., B. M.).

In the Penang specimens, the markings on the elytra are white, and the sutural mark is broadly V-shaped.

31. *MACRONOTA RAFFLESIANA*, Westwood.

*Macronota Rafflesiana*, Westw. Arc. Ent. i. p. 104,  
pl. 28, f. 4 (1842).

*Tæniodera histrio*, Burm. Handb. iii. p. 326 (1842).

*Hab.*—Penang, Sumatra, Malacca, Macassar (Coll. Wall.) (Type, B. M.).

This species appears to be extremely variable. The curved yellow border to the thorax is either very brilliant, or entirely disappears; in some specimens the yellow colour covers two-thirds of the basal portion of the elytra, and is quite immaculate; in others faint indications of black spots beneath the shoulders appear, and these increase in magnitude till, at length, the whole insect is jet black, with the exception of the few pale transverse marks. I believe Burmeister's *T. histrio* to be the same species, and, as I cannot ascertain the exact priority of publication, I adopt the name which is illustrated by a good figure.

## 32. MACRONOTA QUADRILINEATA, Gory &amp; Percheron.

*Macronota quadrilineata*, Gory & Perch. Mon. Cet. p. 321, pl. 63, f. 5.

*Tæniodera quadrilineata*, Burm. Handb. iii. p. 329.

*M. scenica*, Gory & Perch. Mon. Cet. p. 322, pl. 63, f. 6.

*Hab.*—Java (Coll. Parry, B. M., Horsfield); India (B. M.).

## 33. MACRONOTA ANTENNATA, n. s.

Nigra, lanugine flavescente vestita; thorace Y signato; elytris rufo-undulato-fasciatis, sutura in medio punctisque sex albo-flavis.

Black, more or less entirely clothed with pale yellow hairs; clypeus large, elongate, dilated, emarginate; head with a black mark between the eyes; thorax small, rounded in front, somewhat narrowed behind, densely punctate, bearing in the middle a yellow line, forked towards the eyes; scutellum large, triangular, pale yellow, the sides only black; elytra with a mark at the base next the scutellum, an interrupted band across the middle deeply curved behind, and a double curved band near the apex, rufous; two small spots below the shoulders, two lateral below the middle, and two linear apical spots pale yellow; pygidium with a large central yellow spot; beneath glossy, finely punctured; an irregular interrupted pale yellow marginal band, the sternal process small, acute; legs slender, entirely black; antennæ with the club as long as the head, bright rufous.

Length 4 lines.

*Hab.*—Penang (Coll. Parry, B. M.).

A beautiful little species, very distinct from all others, but allied to *M. setipes*, from North China, and apparently nearest to *M. ornata*.

## Sub.-fam. IV. SCHIZORHININÆ.

## Gen. X. SCHIZORHINA, Kirby.

This is an Australian genus, which has spread over many of the Austro-Malayan islands, extending as far west as Batchian. The larger species are obtained chiefly at the sap of the sugar palm (*Arenga saccharifera*), the smaller ones at the flowers of cocoa-nut palms.

## 1. SCHIZORHINA FLAMMULA, Blanchard.

*Schizorhina flammula*, Blanch. Voy. au Pol. Sud. Zool.  
iv. p. 132, Ent. pl. 9, f. 4.

*S. Idæ*, White, Proc. Zool. Soc. 1856, p. 16, pl. xli.  
f. 7, ♀.

*Hab.*—Ceram, Amboyna (Coll. Wall.).

The male specimens are often wholly black, with two elongate patches of orange on the elytra, and have one lateral tooth on the anterior tibiæ, and the hind tibiæ unarmed; the females have the anterior tibiæ with two lateral teeth, and the hind tibiæ with a strong spine, and are coloured more or less as in White's figure. In the *Tijdschrift voor Entomologie* (vol. vii, p. 155), Vollenhoven notes the varieties of this insect, but says nothing of the sexual differences. It is rare, and is only captured at the sap of the sugar palm (*Arenga saccharifera*.) \*

## 2. SCHIZORHINA NIGERRIMA, Vollenhoven.

*Schizorhina nigerrima*, Voll. Tijd. v. Ent. vii. p. 156.

“*Nigerrima, nitida, clypeo parum emarginato.*” (Voll.)

*Hab.*—Morty Is. (Voll.); Batchian (Coll. Wall.).

Distinguished from *S. ebenina*, Butler, by the scarcely emarginate clypeus.

## 3. SCHIZORHINA EMILIA, White.

*Schizorhina (Hemipharis?) emilia*, White, Proc. Zool.  
Soc. 1856, p. 16, pl. xli. f. 9.

*Hab.*—New Hebrides (Coll. Parry, B. M.).

This, and the three following species, form a little group, having a *facies* very distinct from the rest of the genus.

## \* SCHIZORHINA EBENINA, Butler.

*Schizorhina ebenina*, Butler, Proc. Zool. Soc. 1865, p. 729 (fig.).

*Hab.*—Oceania? (B. M., ♀).

This species is very closely allied to *S. flammula*, and if it were known to be from the same locality, I should certainly consider it an extreme black form of that species.

## 4. SCHIZORHINA WHITEI, THOMSON.

*Schizorhina Whitei*, Thoms. Mus. Scient. p. 36.

*S. emiliae*?, Thoms. Arch. Ent. i. p. 429, pl. 16, f. 5.  
(*nec S. emilia*, White).

*Hab.*—Ké Islands, Matabello Islands (Coll. Wall.).

The specimens from the Matabello islands (which lie between Ké and Ceram) form a distinct variety of a deep brassy-blue colour, with the tibiæ and the under surface generally brassy-black. They agree, however, in all essential characters, and especially in the deeply impressed line parallel to the suture and scutellum, and the scarcely emarginate clypens, which distinguishes this species from *S. emilia*. There appear to be no sexual differences in this form.

## 5. SCHIZORHINA ARUANA, n. s.

*S. Whitei* similis sed minor, elongata, purpureo-cuprea, luteo-maculata, elytris lineis punctorum sex ornatis.

Very near *S. Whitei*, but smaller and more elongate, entirely of a bronze colour, with irregular yellowish markings disposed as in *S. Whitei*: the elytra have six lines of somewhat irregular punctures, whereas there are only four, or rarely five, in the former species.

Length 9 lines.

*Hab.*—Aru Islands (Coll. Wall.).

## 6. SCHIZORHINA BOURUENSIS, n. s.

*S. Whitei* similis, sed colore viridi obscuriore, thorace immaculato, et elytris linea suturali interrupta.

Size and form of *S. Whitei*, but of a darker green colour; thorax immaculate, the yellow margin either quite absent or only occupying a small space on each side; elytra with a few markings on the margin or none, the sutural line always interrupted below the scutellum; tibiæ blackish-green, tarsi black.

Length 10-11½ lines.

*Hab.*—Bouru (Coll. Wall.).

Though the differences between this and *S. Whitei* are small, yet the immaculate thorax, interrupted sutural line, and black tarsi, appear constant in a very large number of specimens, and seem to warrant their separation. Varieties occur of a bronzy-black, with purple metallic reflections.

## Gen. XI. ANACAMPTORHINA, Blanchard.

A very rare genus, and so far as is yet known, confined to New Guinea. In the new species here described, there occurs the sexual peculiarity, unusual in this family, of the elytra of the female being distinctly punctate-striate, while those of the male are quite smooth.

## 1. ANACAMPTORHINA IGNIPES, Blanchard.

*Anacamptorhina ignipes*, Blanch. Voy. au Pol. Sud,  
Ent. p. 136, pl. 9, f. 9.

“Tota viridi-chalybea, nitidissima; capite punctato, prothorace scutello elytris lævissimis; pedibus rubro-igneis. Long. 25 mill.” (Blanch.).

*Hab.*—New Guinea, N.W. extremity (Coll. Wall.).

In what appears to be the female, the clypeus is much less broadly notched, and rather more punctured; and the anterior tibiæ are slightly broader, and have the teeth stronger.

## 2. ANACAMPTORHINA FULGIDA, n. s. (Pl. XIII. fig. 2).

*Æneo-aurata, fulgida, tibiis rubro-cupreis, tarsis nigris.*

*Fem.* Clypeo vix emarginato, elytris singulis striis quatuor punctatis.

Golden-green, metallic, very brilliant, tibiæ and antennæ purplish-copper, tarsi black; clypeus of the male finely punctured and very distinctly notched, of the female coarsely punctured and with a scarcely perceptible notch; thorax not quite so wide as the elytra, with a few scattered punctures at the sides; elytra intensely glossy and smooth in the male, less glossy in the female, and with three short lines of punctures on the disk near the base, the line parallel to the suture is also more distinctly punctured than in the male; pygidium broad, compressed, transversely rugose-striate; beneath, with a few coarse scattered punctures, the sides of the abdominal segments with large confluent punctures in the female, smooth in the male except on the extreme margin; sternal spine elongate, attenuate, incurved. Anterior tibiæ with two lateral teeth in both sexes, as in *A. ignipes*.

Length  $9\frac{1}{2}$ - $10\frac{1}{2}$  lines.

*Hab.*—New Guinea, “N.W. extremity” (Coll. Wall.).

A pair only of this superb insect were obtained, with the other species, on the extreme N.W. Peninsula of New Guinea. They are fortunately of opposite sexes, and enable me to point out the somewhat unusual sexual characters, which are much more strongly marked than in the other species.

Sub.-fam. V. CETONIINÆ.

Gen. XII. EURYOMIA, Burmeister.

This genus comprises many very distinct-looking insects. Some are found on foliage, others on flowers, and one (*E. quadriguttata*) was taken on a foetid *Boletus*. The species are spread over the whole Archipelago.

1. EURYOMIA FELINA, Gory & Percheron.

*Cetonia felina*, Gory & Perch. Mon. Cet. p. 270, pl. 52, f. 4.

*Hab.*—Celebes (Coll. Wall.).

2. EURYOMIA RAJA, n. s. (Pl. XIII. fig. 6).

Lata, convexa, supra viridis; clypeo tumido; thorace antice albo-marginato; elytris fasciis brevibus decem marginalibus; epimeris, pygidio, et corpore subtus cinereo-argenteis.

Form of *E. rustica*. Above green; clypeus black, convex, notched in front, punctate; thorax, an irregular hexagon, narrow in front, slightly rounded behind, rather deeply punctured; elytra punctate-striate, the lateral and apical margins black, bearing on each side five transverse white marks, the second from the shoulder longest, the apex of each elytron truncate, not spined, the suture slightly gaping; pygidium silvery white, with a central black spot; beneath silvery white, a median line on the sternum, and a median row of triangular confluent spots on the abdomen, black; legs black, thighs white, with a black line beneath, tibiæ fringed with whitish hairs, anterior tibiæ with one stout sub-apical tooth; sternal process small, rhomboidal.

Length  $9\frac{1}{2}$  lines.

*Hab.*—Penang (Coll. Lamb).

This species has a remarkable similarity in colouration and marking to *E. malayana*, but has no close affinity with that species.

## 3. EURYOMIA RUSTICA, n. s. (Pl. XIII. fig. 7).

Lata, convexa, nigra; elytris postice maculis duabus rotundatis et epimeris ochraceis; pygidio et corpore subtus ochraceis, abdomine basi et sterno in medio nigris.

Black; head convex, punctured, clypeus but slightly emarginate; thorax convex, sub-heptagonal, the sides straight, the posterior angles acute, the hind edge rounded, finely punctured; elytra broad, sub-quadrate, convex, slightly wrinkled; finely and indistinctly punctate-striate; a large round spot on each side below the middle, the epimera, and the very large pygidium, ochre; beneath, the body and abdomen are almost entirely covered with an ochreous crust, the median line of the sternum and base of the abdomen are black; legs clothed with pale rufous hairs; anterior tibiæ with one lateral tooth close to the end.

Length  $7\frac{1}{2}$  lines.

*Hab.*—Borneo, "Sarawak" (Coll. Wall.).

. A very distinct and well-marked species, not obviously allied to any other of the genus.

## 4. EURYOMIA TRIVITTATA, n. s. (Pl. XII. fig. 8).

Depressa, nigra; thorace vitta mediana et alteris lateralibus inæqualibus rubris; elytris maculis duabus sub-quadratis rubris.

Black; clypeus rather broad, closely punctate, emarginate; thorax broad, transversely rounded, sub-angular behind, finely punctate, the sides coarsely punctured, a median stripe not quite reaching the clypeus, and an irregular oblique one on each side, red; elytra with four striæ on each side next the suture, beyond punctate, a sub-quadrate red spot on each side above the middle; pygidium red at the base; the epimera red; beneath, black, lateral segment of the sternum red, the sternal process short, abruptly dilated at the end, pubescence pale yellow; anterior tibiæ with one stout lateral tooth near the apex, and a small obscure one below.

Length  $7\frac{1}{2}$  lines.

*Hab.*—Bouru (Coll. Wall.).

A very distinct species, perhaps nearest to *E. marginicollis*.

5. *EURYOMIA CINCTA*, n. s. (Pl. XIII. figs. 3, 4).

Nigra; thorace rugoso-punctato; elytris striatis, lateraliter punctatis, post medium linea alba interrupta, interdum macula basali magna fulvo-rubra.

Black above, opaque; clypeus punctate, emarginate; thorax punctate, more deeply at the sides, the punctures confluent in patches; scutellum smooth; elytra with about four abbreviated striæ parallel to the suture, beyond punctate, somewhat striate, with slightly elevated ridges and an apical tubercle, apex rounded, forming a deep notch at the suture; just beyond the middle is a narrow white somewhat-interrupted band from the outer margin, but not reaching the suture; in some specimens there is, above this band, a large patch of dark brownish-red, extending on to the scutellum, but not quite reaching the base of the elytra; beneath, with a patch of white scales almost covering the coxæ of the hind legs, otherwise immaculate; anterior tibiæ with two lateral teeth, one near the apex; sternal process abruptly dilated at the extremity.

Length 7-8 lines.

*Hab.*—Penang (Coll. Lamb and Wall.).

As the colouring in this genus is known to vary so much, I have not considered the red-marked specimen distinct, although it looks very different. I can find no other character to separate them, and a series of specimens would probably show many intermediate forms.

6. *EURYOMIA MARGINICOLLIS*, Gory & Percheron.

*Cetonia marginicollis*, Gory & Perch. Mon. Cet. p. 251, pl. 47, f. 6.

*Glycyphana Horsfieldii*, Burm. Handb. iii. p. 346.

*Hab.*—Penang (B. M.); Siam (Coll. Wall.); India (B. M.).

7. *EURYOMIA BINOTATA*, Gory & Percheron.

*Cetonia binotata*, Gory & Perch. Mon. Cet. p. 250, pl. 47, f. 5. *Glycyphana binotata*, Burm. Handb. iii. 347.

*Hab.*—Java (B. M.); Penang, Malay Peninsula, Borneo (Coll. Wall.).

Gory and Percheron describe the spots on the elytra as white, but figure them as yellow, which is the colour in my specimens.



8. *EURYOMIA REGALIS*, Vollenhoven.

*Euryomia regalis*, Voll. Tijd. v. Ent. vii. p. 157.

“Atra, supra opaca, pronoti limbo postico et elytrorum vitta hamata sanguinolentis, horum fascia interrupta punctoque aureis; subtus nigra, nitida, maculis aureis fuscisque. Long. 14 mm.” (Voll.)

*Hab.*—Tondano and Macassar, Celebes (Coll. Wall.).

9. *EURYOMIA SUMATRENSIS*, Vollenhoven.

*Euryomia sumatrensis*, Voll. Tijd. v. Ent. vii. p. 157, pl. 10, f. 5.

“Atra, opaca, prothorace rufo, margine pronoti postico undulato nigro. Long. 15 mm.” (Voll.)

*Hab.*—Sumatra (Leyden Mus.).

10. *EURYOMIA FORSTENI*, Vollenhoven.

*Euryomia Forsteni*, Voll. Tijd. v. Ent. vii. p. 156, pl. 10, f. 4.

“Atra, supra opaca, pronoti limbo postico sanguineo; epimeris et epipleuris flavis, in singulo elytro maculis tribus aureis. Long. 14 mm.” (Voll.)

*Hab.*—Celebes; “Tondano” (Voll.), “Macassar” (Wall.).

This is probably only a variety with the principal markings obsolete, as it agrees with *E. regalis* in all essential characters.

11. *EURYOMIA BELLA*, n. s. (Pl. XIII. fig. 5).

*E. regali* similis sed major; scutello nigro, elytris lineis rubris interruptis et maculis duabus apicalibus sanguineis.

Black, velvety above; head and clypeus as in *E. regalis*; thorax margined at the sides and behind with blood red (interrupted at the scutellum); elytra with a short line at the shoulder, and an oval spot near the apex, blood red, a yellow median band of four linear spots; the pygidium rich chrome-yellow; beneath, shining black, four ovate lateral spots on the abdomen, one on the margin of the hind coxæ, and one on the epimera, orange-ochre; the sternum rugose-striate, and the sternal process transversely dilated.

Length 8 lines.

*Hab.*—Batchian (Coll. Wall.).

This species is closely allied to *E. regalis*, but has the spots beneath differently placed, as well as being differently coloured above, and much larger.

12. *EURYOMIA QUADRIGUTTATA*, Vollenhoven.

*Euryomia quadriguttata*, Voll. Tijd. v. Ent. vii. p. 58.

"Nigra, opaca, in singulo elytro maculis duabus transversalibus, in meso- et meta-thorace necnon in abdomine maculis lateralibus flavis. Long. 14-17 mm." (Voll.)

*Hab.*—Ceram, Batchian, Gilolo, Morty Is. (Coll. Wall.).

Vollenhoven gives Sumatra also as a locality, but it is probable that a specimen of the nearly allied *E. binotata*, Gory & Perch., has been mistaken for the present species.

13. *EURYOMIA CELEBENSIS*, n. s. (Pl. XIII. fig. 8).

Nigra, supra opaca; thorace angulis externis sanguineo-marginatis, elytris maculis quatuor et epimeris aureis; subtus immaculata, aut macula utrinque abdominali basali alba.

Black, above opaque, velvety; head and clypeus finely punctate, the latter emarginate; thorax red-margined at the outer angles only; elytra with a large median and smaller sub-apical marginal spot, and the epimera, chrome-yellow; scutellum and pygidium immaculate; beneath shining rugose-punctate, finely hirsute, immaculate, or with a white spot on each side of the second abdominal segment; a small yellow spot on the outer edge of the posterior coxæ.

Length 7 lines.

*Hab.*—Macassar and Tondano, Celebes (Coll. Wall.).

Allied to *E. binotata*, but sufficiently distinct by the arrangement of its spots and markings, although not presenting any tangible structural differences.

14. *EURYOMIA ÆTHIESSIDA*, n. s.

*Glycyphana æthiessida*, (White, MS., List of Ceton. B. M. p. 20).

Nigra, subtus nitida, supra opaca; thorace maculis duabus anterioribus fulvis; elytris maculis quatuor fasciam transversam formantibus; subtus maculis ovatis sexdecim albis ornata.

Near *E. quadriguttata*. Black, above opaque, clypeus finely punctate, notched; head convex; thorax obscurely

punctate at the sides, near each anterior angle an elongate fulvous spot; elytra punctate-striate, a transverse band across the middle of four fulvous spots, the middle ones small; the epimera and coxæ with whitish spots; beneath, shining black, five white spots on each margin (three on the abdomen), and three on each side the median line (two on the abdomen); sternal process much dilated transversely.

Length 7 lines.

*Hab.*—Philippine Islands (Coll. Parry, B. M.).

15. EURYOMIA ATERRIMA, Wiedemann.

*Cetonia aterrима*, Wied. Zool. Mag. ii. p. 86; Gory & Perch. Mon. Cet. p. 252, pl. 48, f. 1.

*Hab.*—Java (B. M.).

16. EURYOMIA PAPUA, n. s.

Nigra, supra opaca; thorace punctato; elytris striatis et impressis; pygidio fere toto aurantiaco: subtus abdomine maculis quatuor utrinque elongatis albis.

Black, above velvety; clypeus shining, punctate, slightly emarginate; thorax covered with close, faint, large punctures; elytra with five striæ on each side, the suture punctured beyond, moderately hollowed below the shoulders; pygidium covered with a large orange spot, sometimes divided in the line of the suture; beneath, shining black, rugose punctured, the sternal process short and much dilated laterally; four elongate white spots on each side of the abdomen.

Length 7 lines.

*Hab.*—New Guinea, Mysol (Coll. Wall.).

A very distinct species, allied to *E. Forsteni*.

17. EURYOMIA LATERALIS, n. s. (Pl. XIII. fig. 9).

Supra obscure purpureo-nigra, subtus nigra, nitida; elytris striatis, lateribus striato-punctatis, maculis fulvo-ochraceis marginatis; subtus corpore toto maculis marginalibus aureo-fulvis vel ochraceis.

Very near *E. perviridis* (*post*, p. 570), and of the same form; black, above dark velvety black, beneath shining black; the elytra with two simple striæ parallel to the suture, beyond punctate-striate,

but not so coarsely as in *E. perviridis*; six unequal buff spots along the lateral margin, and a small one at the apex; a spot on the epimera above, and the upper margin of the pygidium, of the same colour; beneath, the sides of the thorax, sternum, and abdomen with spots of rich golden-buff; sternal process not much dilated, rounded at the end.

Length 7 lines.

*Hab.*—Ceram (Coll. Wall.).

#### 18. EURYOMIA PERVIRIDIS, n. s.

Viridis, supra opaca, subtus cum clypeo nitens; thorace immaculato, elytris punctato-striatis, singulis maculis quatuor vel quinque marginalibus rufo-ochraceis; pygidio et corpore subtus rufo-ochraceo-maculatis; antennis et tarsis nigris.

Form of *E. malayensis*, green, underside and clypeus shining green; clypeus and thorax immaculate, finely punctured; elytra punctate-striate, region of the scutellum smooth—of the apex with scattered punctures, the outer margins blackish, with three larger and three smaller ochreous-orange spots (the smaller sometimes obsolete); pygidium with a broad interrupted ochreous-orange border; the epimera and large spots on the sides of the thorax, sternum, and abdomen beneath, ochreous-orange; sternum and sides of the abdomen coarsely punctured, sternal process dilated, rounded at the end; thighs and body clothed with pale rufous hairs.

Length 7-8½ lines.

*Hab.*—Amboyna, Ceram, Matabello (Coll. Wall.).

A very distinct species, remarkable for the shining green of the under surface.

#### 19. EURYOMIA MALAYENSIS, Guérin.

*Cetonia malayensis*, Guér. Rev. Zool. 1840, p. 81: Burm. Handb. iii. p. 793.

*Hab.*—Penang, Java, Borneo (Coll. Wall.).

In a fine Penang specimen, the elytra are glossed with rich purply-brown, and there is an additional spot near the outer angle of the thorax.

20. *EURYOMIA TENERA*, n. s.

*E. malayensi* similis sed minor; elytris apicem versus maculis linearibus sex vel octo albis; subtus thorace et corporis lateribus albis.

Closely resembles *E. malayensis* in form and general appearance; above green, clypeus pitchy; thorax immaculate, finely punctate; elytra with the margins towards the apex blackish, sometimes broadly blue-black, two small transverse white lines on each side towards the apex, another between the lower one and the suture, sometimes wanting, and a small spot close to the apex, white; pygidium with a large triangular white spot on each side; beneath, the thorax entirely white, body and abdomen deep green, or rufous, with broad lateral white bands; legs rufous-greenish, or nearly black.

Length  $6\frac{1}{2}$  lines.

*Hab.*—Penang, Java (B. M., Coll. Wall. and Lamb).

21. *EURYOMIA ASPERA*, n. s.

Obscure viridis; thorace grosse punctato; elytris punctatis et striatis, asperis, maculis sex marginalibus et apicalibus albis.

Near *E. glauca* and *E. tenera*. Above, dark green, clypeus black; thorax finely white-edged at the anterior angle, coarsely punctate, sometimes with a red median line extending on to the scutellum; elytra punctate-striate, deeply striate near the suture behind, finely hirsute, behind the middle on each side two white marginal spots, and one near the suture; a spine at the suture, and a very small sinuation; beneath, black, the sides broadly white-marked, pygidium and legs black.

Length 6 lines.

*Hab.*—Penang (Coll. Lamb).

22. *EURYOMIA MOLUCCARUM*, n. s.

Forma ut in *E. malayensi*, supra viridis; clypeo nigro; thorace punctis duobus discalibus maculisque lateribus (sæpe obsoletis), et elytris singulis punctis tribus discalibus et quatuor vel quinque marginalibus ochreo-flavis; epimeris ochreis. Subtus nigra, lateribus aureo-flavo-maculatis.

Allied to *E. jucunda*, Fald., form of *E. malayensis*; above, green, with spots of ochre-yellow; clypeus black, finely punctate; thorax punctate towards the margins, on the disk two points which are sometimes double, at others almost obsolete, on the lateral margins towards the front two larger spots; elytra with a dot near the shoulder, two on the disk below the middle, and four or five, sometimes double, pretty equally distributed along each margin; the lateral spots are somewhat irregular; epimera ochre-yellow; pygidium ochre-margined, leaving a central black spot; beneath, black, the sides of the body and abdomen with patches of rich golden-ochre, and more or less dotted with rufous pubescence; sternal process dilated, somewhat triangular in front; anterior tarsi with one strong lateral tooth just below the terminal spine.

Length 8-9 lines.

*Hab.*—Batchian, Gilolo, Kaioa, Morty Island and Celebes (Coll. Wall.).

This species varies in colour; a specimen from Batchian is rich brown, and one from Morty velvety black, but they do not otherwise differ.

### 23. EURYOMIA VERNALIS, n. s.

Supra læte viridis, opaca; elytris singulis maculis quatuor vel quinque marginalibus ochreis; subtus nigra, nitida, convexa, lateribus crusta rufo-ochrea vestitis.

Above, fine green, opaque; clypeus black, shining, finely punctured, deeply notched in front; thorax immaculate, with scattered punctures on the sides; elytra truncate at the apex, finely punctate-striate, the outer edges blackish, ornamented with from three to five small marginal spots on each side; pygidium pale ochre, with a large central black spot; beneath, shining black, the sides of the thorax, sternum, and abdomen broadly crusted with pale reddish-ochre; median line of the sternum elevated and terminating in a dilated process: the hind thighs with an ochreous stripe on the inner edge.

Length 8 lines.

*Hab.*—Philippine Islands (Coll. Parry).

This species is allied to *E. moluccarum*.

## 24. EURYOMIA RUFOVITTATA, Guérin.

*Cetonia rufovittata*, Guér. Rev. Zool. 1840, p. 82.

*Hab.*—Penang, Malay Peninsula, Borneo (Coll. Wall.).

Guérin's description of this is very imperfect. The upper surface is green, except the clypeus, which is more or less rufous. The thorax is either immaculate, or has the anterior edge broadly red-margined, and a red patch on each side, a little above the base, and almost meeting above the scutellum. The stripe on the elytra is often more or less obsolete, and the elytra are obscurely punctate-striate.

## 25. EURYOMIA BOWRINGII, n. s. (Pl. XIV. fig. 5).

*E. rufovittatæ* similis, sed major; thorace immaculato; elytris lineis brevibus marginalibus et punctis apicalibus albis.

Above, green; clypeus rufous, finely punctate, emarginate; thorax finely punctate, immaculate; elytra with a longitudinal rufous stripe from the shoulder to near the apex, two fine short transverse marks on the outer margin beyond the middle, and a spot at the apex, with the epimera, white; under surface, pygidium, and legs pitchy rufous, with a greenish tinge; sternal process broad, much dilated; sides of the body and abdomen white-banded.

Length 7 lines.

*Hab.*—Borneo (Coll. Wall.); Penang (B. M.).

## 26. EURYOMIA QUADRICOLOR, Wiedemann.

*Cetonia quadricolor*, Wied. Zool. Mag. ii. p. 88.

*Glycyphana quadricolor*, Burm. Handb. iii. 349.

“Obscure viridis, supra opaca, subtus nitida; pronoti annulo intra-marginali aurantiaco; elytris, pectore abdomineque albonotatis. Long. 5 lin.” (Burm.)

*Hab.*—Java (Wied., Burm.); Penang (Coll. Lamb).

## 27. EURYOMIA GLAUCA, Blanchard.

*Cetonia glauca*, Blanch. Voy. au Pol. Sud. iv. p. 131,  
pl. 9, f. 5.

“Oblonga, parallela, obscure viridis, clypeo emarginato;  
prothorace punctato, limbo laterali maculisque dua-  
bus minutis albido-sericeis; elytris seriato-punctatis,  
singulis maculis quinque albido-sericeis. Long. 11  
mill.” (Blanch.)

*Var.*—Minor, maculis nonnullis sæpe obsoletis.

*Hab.*—Ceram, Mysol (Coll. Wall.); *Var.*, Mysol (Coll. Wall.).

## 28. EURYOMIA SINUATA, n. s.

*E. teneræ* similis, viridis, elytris feminae ad apicem  
valde sinuatis, singulis maculis sex parvis albis.  
Subtus nigra, lateribus albo-maculatis.

Near to some forms of *E. tenera*; above, uniform green; clypeus black, emarginate, punctate; thorax roundish, finely punctate, with a small white mark at each anterior angle; elytra punctate-striate and finely hirsute, the apex spined at the suture and sinuated (very deeply in the female), with two or three white spots on each side parallel to the suture and three others near the margin, all in the apical half of the elytra; pygidium immaculate in the male, with a broad patch of white on each side in the female; beneath, black, with white patches on the sides of the thorax, body and abdomen.

Length 6 lines.

*Hab.*—Malacca, Borneo (Coll. Wall.).

## 29. EURYOMIA LABECULA, n. s.

Viridis, clypeo nigro; capite maculis duabus, thorace  
duabus vel quatuor, elytris singulis octo, albis; sub-  
tus nigra, maculis lateralibus albis.

Very near *E. sinuata*, the elytra spined, but not sinuated at the apex; above, green, the clypeus black, thorax with the anterior angle and two or four points white; scutellum broader than in *E. sinuata*; elytra with two spots at each shoulder, and five or six others disposed as in *E. sinuata*, but more prominent, white; pygidium black or white bordered; beneath, black, marked with white on the sides, much more broadly in the female.

Length 6 lines.

*Hab.*—Macassar, Celebes (Coll. Wall.).



## 30. EURYOMIA MODESTA, Fabricius.

*Cetonia modesta*, Fab. Syst. El. ii. 158; Gory & Perch. Mon. Cet. p. 286, pl. 55, f. 7.

*Glycyphana modesta*, Burm. Handb. iii. p. 352.

*Hab.*—Penang, Borneo, Java, Sumatra (Coll. Wall.); Philippine Islands (Coll. Parry).

## 31. EURYOMIA CUCULUS, Burmeister.

*Glycyphana cuculus*, Burm. Handb. iii. p. 352.

“Viridis, albido sparsim squamosa, subtus in latere alba; punctis duobus pronoti, elytri singuli septem albis, pygidio immaculato. Long. 5 lin.” (Burm.).

*Hab.*—Philippine Islands.

This is probably only a variety of *E. modesta*.

## 32. EURYOMIA SWAINSONII, Gory &amp; Percheron.

*Cetonia Swainson*, Gory & Perch. Mon. Cet. p. 249, pl. 47, f. 4.

? *C. bimacula*, Wied. Zool. Mag. ii. p. 85.

*Hab.*—Teuasserim (?), Java (B. M.).

## 33. EURYOMIA INCERTA, n. s. (Pl. XIV. figs. 1, 2).

Nigra, supra viridi-obscura vel viridi-rufa, sæpe rufo-varia; thorace albo-marginato, sæpe bipunctato; elytris maculatis, ponè medium maculis quatuor in fasciam curvatam dispositis.

Black, above dark green or brownish-green, often with reddish patches; clypeus black, punctate; thorax blackish, with a broad lateral border and two discal points, yellowish-white, the border often continues on the head, and extends on to the sides of the clypeus; scutellum often reddish, sometimes nearly black; elytra obscurely punctate-striate and finely hirsute with minute scattered bristly points, a little behind the middle a band formed of four spots, two larger touching the outer margin and two smaller near the suture advanced a little forward, often a single humeral spot and sometimes a group in the anterior part of the elytra; behind, a second apical band of four smaller spots parallel to the

first, and an apical spot; these are not unfrequently all absent; the pygidium is generally bordered more or less broadly, and on the undersurface the thorax, sternum, and abdomen are spotted on the sides, all these spots and markings being white or yellowish; the whole body beneath is rather densely covered with bristly points, and the sternal process is short and very much dilated at the end.

Length 5 lines.

*Hab.*—New Guinea, Waigiou, Mysol, Aru Islands, Timor (Coll. Wall.).

A variable species, closely allied to *E. brunripes* and to *E. fasciata*, from Australia, but I think distinct; the median band of spots is the most constant. In a variety from Waigiou, the thorax and scutellum are orange-rufous.

34. *EURYOMIA FULVIPICTA*, n. s. (Pl. XIV. fig. 6).

Viridis; capite lineis vel maculis lateralibus, thorace marginibus lateralibus, elytris singulis vitta obliqua macula magna marginali et fascia curvata apicali, fulvis; pygidio infra fulvo-marginato; subtus viridinigra, thorace antico, sterno et abdomine late fulvo-aureo marginatis; processu sternali dilatato; antennis rufis, pedibus rufis vel nigris.

Green, clypeus black, a broad line on each side curved between the eyes, or separated into spots, fulvous-yellow; thorax broadly margined on the sides; elytra with a stripe on each side from near the shoulder converging towards the apex, a large oval spot on the outer margin and a small curved apical band, rich fulvous yellow; pygidium with the lower half of the same colour; beneath, blackish-green, the fore part of the thorax, the sternum and abdomen broadly margined with rich golden-fulvous; the sternal process much dilated; antennæ rufous; legs either light rufous, or pitchy black (the latter specimen is a female).

Length 6 lines.

*Hab.*—Ceram, Amboyna (Coll. Wall.).

A very distinctly marked and handsome little species.

## 35. EURYOMIA CRETATA, n. s. (Pl. XIV. fig. 4).

Nigra, thorace lateribus et maculis rotundatis duabus albis; elytris obscure viridibus, regione suturali apicem versus nigra, singulis maculis quatuor linearibus et quinque subrotundatis cretaceis; subtus lateribus argenteis.

Black; clypeus shining, closely punctate, emarginate; thorax opaque, obscurely punctate, the lateral margins broader in front, and two spots on the disk, white; scutellum black; elytra dark green, punctate-striate, with simple striæ towards the apex, a black stripe from the middle of each elytron meeting on the suture near the apex, an interrupted stripe parallel to the suture, a short line beyond it towards the shoulder below which is a small dot, and four marginal spots on each side, chalky-white; pygidium pitchy, with a buff mark on each side; beneath, the sides of the thorax and sternum, the epimera, the ends of the coxæ, and a large patch on each side of the abdomen, silvery-white; antennæ and legs black, or pitchy black, hirsute; the sternal process small, flat, dilated at the end.

Length 5 lines.

*Hab.*—Macassar, Celebes (Coll. Wall.).

Closely allied to *E. aromatica*.

## 36. EURYOMIA AROMATICA, n. s. (Pl. XIV. fig. 3).

Obscure viridis; thorace bipunctato; elytris singulis maculis quinque vel sex, una mediana lineari, altera marginali gemina. Subtus nigro-viridis, hispida, processu sternali valde dilatato.

Above, dull green; clypeus black, notched and punctate; thorax finely punctate and hispid, the disc with two white spots and the anterior angles more or less white-margined, a median line on the thorax extending on to the scutellum is sometimes more or less rufous; elytra rounded behind, the suture very slightly produced, rather irregularly punctate-striate, and finely hispid, on each side five or six opaque white spots, one on the disc near the base, small and roundish, one lower down and nearer the suture larger and linear, slightly below this and close to the margin a small double spot, near the apex an oblique spot and one or two small ones at the apical margin;

pygidium black, hispid, sometimes with an interrupted whitish border; beneath, blackish green, punctate and hispid, the sides and appendages of the sternum more or less patched with white, the abdomen variably white-bordered; the sternal process flat, truncate, much dilated; anterior tibiæ with one sharp tooth near the apex, and a blunt indistinct one lower down; legs and antennæ black.

Length 6 lines.

*Hab.*—Batchian, Morty Island, Kaioa Islands (Coll. Wall.).

Closely allied to *E. glauca* and *E. aspera*, but appears to differ constantly both in marking and in other characters.

### 37. EURYOMIA PLAGIATA, Schaum.

*Glycyphana plagiata*, Schaum, Trans. Ent. Soc. v. p. 69.

*Hab.*—Java (B. M., Coll. Parry).

### 38. EURYOMIA PENANGA, n. s.

Nigra, parva, subquadrata; elytris singulis macula magna subquadrata rubra; pygidio et lateribus corporis abdominisque cinereo-albis.

Black, thorax convex, finely punctate; scutellum large; elytra punctate-striate, two pairs of deep striæ parallel to the suture behind, on the sides a large roundish red spot: pygidium very large, ashy-yellow; beneath, black, shining, the sides of the body and abdomen ashy-white; legs and antennæ black.

Length  $4\frac{1}{2}$  lines.

*Hab.*—Penang (B. M.).

### 39. EURYOMIA MACQUARTI, Gory & Percheron.

*Cetonia Macquart*, Gory & Perch. Mon. Cet. p. 251,  
pl. 47, f. 7.

*Glycyphana Macquarti*, Burm. Handb. iii. p. 347.

*Hab.*—Java (Coll. Parry).

### 40. EURYOMIA BEHRII, Schaum.

*Glycyphana Behrii*, Schaum, Trans. Ent. Soc. v. p. 70.

*Hab.*—A small island east of Java (Coll. Schaum).

## 41. EURYOMIA FESTIVA, Fabricius.

*Cetonia festiva*, Fabr. Syst. Eleuth. ii. 153; Schön.

Syn. Ins. I. iii. p. 137; Burm. Handb. iii. p. 791.

*Hab.*—Sumatra (? Lac.); Tranquebar (Burm.).

Burmeister thinks this is a *Protætia*, Lacordaire makes it a *Euryomia* of the section *Glycyphana*. I have not seen a specimen.

(I do not give *Euryomia jucunda* = *C. Goryi*, Guér., said to be from Java, because authentic specimens are now known from India, China, and Mongolia, a range which renders it probable that the former locality is erroneous.)

## Gen. XIII. CETONIA, Fabricius.

All the Malayan species belong to the *Protætia* group. The fine large species from Celebes were obtained at the sap of the sugar palm; *C. taciturna* was found on foliage, while *C. mandarinea* was taken eating twigs and leaves, and on another occasion on posts of houses. This genus is almost absent from the Australian region.

## 1. CETONIA SPECTABILIS, Schaum.

*Cetonia spectabilis*, Schaum, Anal. Entom. p. 43.

*Protætia spectabilis*, Burm. Handb. iii. p. 473.

*Hab.*—Java (Coll. Wall., B. M.).

## 2. CETONIA BIFENESTRATA, Chevrolat.

*Cetonia bifenestrata*, Chevr. Rev. Zool. 1841, p. 223.

*Protætia bifenestrata*, Burm. Handb. iii. p. 492.

*C. indra*, Hope, Proc. Ent. Soc. 1841, p. 33.

*C. gemella*, Newm. Entomol. i. p. 169.

*Hab.*—Philippine Islands (B. M.).

## 3. CETONIA CIOCOLATINA, n. s. (Pl. XIV. fig. 8).

Magna, subtus purpureo-cuprea, supra fusco-brunnea, opaca; elytris lævibus, ad suturam apicem versus elevatis, apice spinosis, lateribus et fasciis paucis brevibus apicem versus luteis.

Above, deep opaque chocolate-brown; clypeus entire in front, with a raised border, closely punctured; thorax smooth, sub-triangular; elytra smooth, the apical half with an angular sutural keel ending in an acute spine, a short sub-apical transverse stria, one above it near the suture, and several short striæ and dots on the margin, orange-ochre; pygidium with a spot of the same colour near each lateral angle; beneath, purple copper, shining; a row of orange-buff spots on the sides of the body and abdomen; the sternal spine dilated and rhomboidal; the head and legs fringed with rufous hairs; the anterior tibiæ with a strong tooth below the apex, and an obscure tubercle about the middle; a notch on the outer margin of the middle and hind tibiæ.

Length 16 lines.

*Hab.*—Tondano, Celebes (Coll. Wall.).

#### 4. CETONIA PROCERA, White.

*Cetonia (Protætia) procera*, White, Proc. Zool. Soc. 1856, p. 17, pl xli. f. 6.

*Hab.*—Philippine Islands (B. M.).

#### 5. CETONIA INANIS, n. s.

Viridis, subtus metallica, supra obscura, opaca; clypeo metallico, punctato, margine integro; thorace elytrisque marginibus punctatis, horum apice ad suturam minime producto, rotundato; subtus, lateribus valde striatis, processu sternali ad apicem valde dilatato.

Green, immaculate; above, dull opaque green; clypeus metallic, entire, finely punctate; thorax with the anterior angles acute, the posterior rounded, the lateral margins punctate; elytra smooth, with an abrupt elevation towards the apex, the sides and apex punctate towards the suture, sub-striate; the apex of the elytra very slightly produced at the suture, and blunt; beneath, metallic brassy-green, the sides of the thorax, sternum, and hind coxæ deeply striate; the sternal process very broadly dilated at the end into a hammer-shaped process; thighs and tibiæ with fringes of rufous hairs.

Length 1 inch.

*Hab.*—Java (B. M.).

A fine and distinct species, of the form of *C. regalis*.

## 6. CETONIA CELEBICA, n. s. (Pl. XIV. fig. 7).

Nigro-cuprea, nitida, punctata, elytris singulis maculis sex fulvis, apice ad suturam acuto, nec spinoso. Subtus cuprea, corpore et abdominis lateribus rufo-aureo-maculatis.

Above, deep purplish-bronze or coppery-black, shining; head thickly punctate; clypeus entire, bordered; thorax sub-triangular, finely punctured on the disk, more coarsely on the sides, sometimes with a marginal line of buff-ochre; scutellum triangular, smooth; elytra finely but irregularly punctured, an obtuse ridge on each side towards the apex, where there is an angular keel on each side of the suture, the apex acute but not spined; three lateral and three sutural transverse golden-buff spots, and a smaller one on the inner angle of the epimera above; a sub-triangular border on each side of the pygidium. Beneath, dark coppery purple, smooth; the sides of the abdomen body and thorax banded and spotted with deep golden-rufous; the sternal spine much dilated and almost circular at the end; legs fringed with deep rufous hairs; anterior tibiæ with a strong tooth below the apex, and a smaller one beneath; middle and hind tibiæ slightly notched on the outer margin towards the apex.

Length  $10\frac{1}{2}$  lines.

*Hab.*—Tondano, N. Celebes (Coll. Wall.).

Somewhat allied to *C. philippensis*, but larger, broader, and differently marked and coloured.

## 7. CETONIA PHILIPPENSIS, Fabricius.

*Cetonia philippensis*, Fab. Syst. El. ii. p. 152.

*Protætia philippensis*, Burm. Handb. iii. p. 496.

*C. hieroglyphica*, Gory & Perch. Mon. Cet. p. 175,  
pl. 31, f. 1.

*Hab.*—Philippine Islands (Coll. Wall., B. M.).

## 8. CETONIA GUERINI, Eydoux &amp; Souleyet.

*Cetonia Guerini*, Eyd. et Soul. Rev. Zool. 1839, p. 265.

*Gametis Guerini*, Burm. Handb. v. p. 556.

*C. Rogeri*, Burm. Handb. iii. p. 796.

*Hab.*—Philippine Islands (B. M.).

## 9. CETONIA FERRUGINEA, Gory &amp; Percheron.

*Cetonia ferruginea*, Gory & Perch. Mon. Cet. p. 196,  
pl. 35. f. 3.

*C. sybaritica*, Newm. Entomol. i. p. 169.

*Protætia cinnamomea*, Burm. Handb. iii. p. 491.

*Hab.*—Philippine Islands (Coll. Wall., B. M.).

## 10. CETONIA ANOVITTATA, Chevrolat.

*Cetonia anovittata*, Chevr. Rev. Zool. 1841, p. 223.

*C. chloris*, Newm. Entomol. i. p. 170.

*Protætia manillarum*, Burm. Handb. iii. p. 497 (*nec* Chevr.).

*Hab.*—Philippine Islands (Coll. Parry, B. M.).

A very variable species, very close to *C. ferruginea*, but generally of a more bronze or purple colour, and with strong sutural spines to the elytra. In Major Parry's collection are two large specimens, one bronzy-green, the other blue-black, which must be referred to this species.

## 11. CETONIA BREMII, Schaum.

*Protætia Bremii*, Schaum, Ann. Soc. Ent. Fr. 1844,  
p. 418.

*Hab.*—Philippine Islands (B. M.).

Near *C. ferruginea* and *C. anovittata*, from both of which it appears to me to differ sufficiently.

## 12. CETONIA DUBIA, n. s.

*Protætia dubia*, MS. (B. M.).

Plana, depressa, lateribus angulatis, supra olivaceo-cuprea, subtus cupreo-ænea; thorace elytrisque albo maculatis; processu sternali non dilatato, incurvato.

Above, coppery-olive; clypeus punctate, the anterior margin recurved and notched; thorax sub-triangular, punctate, with two linear marks and several spots whitish; scutellum elongate, triangular, with a white band at the base; elytra flat, sub-quadrangle, the sides angular, with numerous irregular spots and linear markings;



pygidium white-marked; beneath, bronzy-green or coppery, the sides more or less covered with a whitish crust; the sternal process straight, not dilated at the end, incurved in the (?) female.

Length 8-10 lines.

*Hab.*—Philippine Islands (B. M.).

A curious species, much resembling *C. Bremii*, but at once distinguished by its flatter elytra and simple sternal process. Two specimens in the British Museum differ somewhat in the form of the sternal process, which may be a sexual difference, as they are otherwise very much alike. This makes some approach to my genus *Sternoplus* (*post*, p. 589).

13. CETONIA BIPUNCTATA, Gory & Percheron.

*Cetonia bipunctata*, G. & P. Mon. Cet. p. 201. pl. 36, f. 4.

*Protætia bipunctata*, Burm. Handb. iii. p. 489.

*Hab.*—Celebes (Coll. Wall., B. M.).

14. CETONIA PROLONGATA, Gory & Percheron.

*Cetonia prolongata*, G. & P. Mon. Cet. p. 173, pl. 30, f. 5.

*Hab.*—Ternate, Kaioa (Coll. Wall.); Java? (G. & P.).

I have no doubt that this species is not found in Java. It appears restricted to the small chain of islands from Ternate southward to Kaioa, where it is plentiful, but is replaced by *C. taciturna* in Gilolo and Batchian.

15. CETONIA OBTUSA, n. s.

Nigro-ænea; thorace punctato, albo-marginato; elytris truncatis, punctatis, utrinque bicarinatis, transverse albo-maculatis; subtus purpureo-cuprea, corpore pedibusque pilis pallidis vestitis.

Brassy-black; clypeus sub-quadrate, rounded in front; thorax coarsely punctate, the sides margined with whitish; elytra sub-quadrate, truncate at the apex, the suture not spined, two polished ridges on each side, the sides transversely striate, with numerous short transverse whitish markings; beneath coppery-purple, the sternal process dilated, the thorax, body, and thighs thickly clothed with fine yellowish hairs; middle tibiæ deeply excavated near the apex.

Length  $6\frac{1}{2}$  lines.

*Hab.*—Java (B. M.).

Somewhat resembles *C. prolongata*, but differs in many important characters.

## 16. CETONIA TACITURNA, Guérin.

*Cetonia taciturna*, Guér. Voy. Coquille, Ent. pl. iii. f. 12.

*C. Dejean*, Gory & Perch. Mon. Cet. p. 213, pl. 39, f. 4.

*Hab.*—Bouru, Amboyna, Ceram, Goram, Ké Islands, Batchian, Gilolo, Sula Islands, Makian, Morty Island, Gagie Island, Aru Islands (Coll. Wall.); Louisiade Archipelago (B. M.).

## 17. CETONIA MANILLARUM, Chevrolat.

*Cetonia manillarum*, Chevr. Rev. Zool. 1841, p. 223.

*C. ambigua*, Chevr. *l. c.*

*C. subviridis*, Newm. Entomol. i. p. 170.

*C. germana*, Newm. *l. c.*

*Protætia chlorotica*, Burm. Handb. iii. p. 500.

*Hab.*—Philippine Islands (B. M.).

## 18. CETONIA ACUMINATA, Fabricius.

*Cetonia acuminata*, Fabr. Syst. El. ii. p. 154. *Protætia*

*acuminata*, Burm. Handb. iii. p. 479.

*C. marmorata*, Fabr. Syst. El. ii. p. 154.

*C. marmorea*, Weber, Obser. Ent. p. 69.

*C. corrosa*, Gory & Perch. Mon. Cet. p. 204, pl. 37, f. 2.

*Hab.*—Sumatra, Flores, Timor, Banca (Coll. Wall.); Java (B. M.); Penang (Coll. Lamb).

## 19. CETONIA MANDARINEA, Weber.

*Cetonia mandarinea*, Weber, Obser. Ent. p. 68.

*C. mixta*, Weber, *lib. cit.* p. 69.

*C. atomaria*, Fabr. Syst. El. ii. p. 153; Gory & Perch.

Mon. Cet. p. 204, pl. 37, f. 3.

*C. fusca*, Herbst, Col. iii. p. 257, pl. 32, f. 4.

*C. fictilis*, Newm. Ent. Mag. v. p. 169.

*C. querula*, Newm. Entomol. i. p. 171.

*Hab.*—Philippine Islands, Celebes, Borneo, Banca (Coll. Wall.); Sumatra, Java (B. M.); Penang (Coll. Lamb).

## 20. CETONIA ARROGANS, n. s.

*Protætia arrogans*, MS. (B. M.).

*C. mandarinæ* similis, sed thorace maculis parvis rotundatis fulvis; elytris ad suturam minus spinosis; subtus rufo-maculata et pilis rufis vestita.

Very near *C. mandarina*, yet looking very distinct; also near *C. intricata*, Saund. Above, deep brown; clypeus quadrate, punctate, rather wider than in *C. mandarina*; thorax with about sixteen small roundish fulvous spots; elytra with numerous small spots grouped in two irregular curved bands, the apex slightly spined at the suture; beneath, coppery or coppery-black, the sides more or less marked with rufous and much clothed with rufous hairs; the sternal process moderately dilated.

Length 7 lines.

*Hab.*—Philippine Islands (B. M.).

## 21. CETONIA CILIATA, Olivier.

*Cetonia ciliata*, Oliv. Ent. I. No. vi. p. 90, pl. xii. f. 112.

*Protætia ciliata*, Burm. Handb. iii. p. 488.

*C. lunulata*, Fab. Syst. El. ii. p. 152.

*Hab.*—Java (B. M.); Sumatra? (Burm.).

## 22. CETONIA PORCINA, n. s.

Rufo-brunnea; clypeo bidentato recurvato; thorace viridi-brunneo, limbo lato ochraceo interne angulato; elytris ochraceo-maculatis et punctatis; subtus æneo-cuprea, crusta ochracea fere in toto vestita.

Above, reddish-brown; clypeus bidentate and turned up in front, dotted with ochre; thorax olive-green, finely dotted with ochre, a broad border on each side angulated within, pale ochre, and two spots of the same colour on the disk; elytra truncate at the apex, the suture spined, an elevated ridge on each side behind, with numerous curved transverse marks (six more distinct) and many small dots, pale ochreous; beneath, brassy-bronze, the whole surface except the median line of the sternum and abdomen covered with a crust of pale rufous ochre; the legs rather short and thick, striated and dotted with ochre; the sternal process very much dilated transversely; anterior tibiæ unarmed.

Length 7 lines.

*Hab.*—Java (Coll. Parry).

This may be the same as *C. cupripes*, Wied., *rufo-cuprea*, G. & P., (*post*, p. 587); but their descriptions do not well correspond, and the size they give is much less.

23. *CETONIA SOLORENSIS*, n. s.

Rufo-cuprea, pallida, sub-viridis, hirsuta ; clypeo emarginato ; thorace punctato, utrinque maculis tribus parvis flavis ; elytris punctatis, maculis sparsis flavis ; subtus abdomine cupreo metallico, corpore valde hirsuto.

Pale coppery-brown, tinged with green ; the whole upper surface closely set with yellow hairs ; clypeus coarsely punctured, with an elevated border and notched in front ; thorax convex, regularly punctured, with a median line somewhat elevated and smooth, three small yellow spots on each side of the disk ; elytra punctate, the sides obscurely keeled towards the apex, the suture elevated behind and spined at the apex, with scattered and irregular dots and marks, pale yellow ; beneath, the abdomen coppery polished, with a double row of yellow marks on each side, the rest of the body and legs densely clothed with pale yellowish hairs ; the sternal spine dilated, rounded at the end ; anterior tibiæ with two teeth below the apical spine, the lower one indistinct ; middle and hind tibiæ deeply notched.

Length 9 lines.

*Hab.*—Solor Island, east of Flores (Coll. Wall.).

Allied to *C. acuminata*, Fab., but the specimen in my collection is very distinct from all I have seen of that species.

24. *CETONIA OBSCURELLA*, Gory & Percheron.

*Cetonia obscurella*, Gory & Perch. Mon. Cet. p. 270, pl. 52, f. 5.

*Hab.*—Java (Coll. Wall.) ; Sumatra (B. M.).

25. *CETONIA CRASSIPES*, n. s.

Supra olivaceo-brunnea, hirta ; elytris apicibus ochraceo-brunneis ; subtus rufo-nigra, thorace et sterno ochraceis, nigro-irroratis ; abdomine ochraceo-marginato ; pedibus posterioribus valde crassis.

Above, olive-brown ; clypeus entire, semicircular in front ; thorax convex, hispid with short pale rufous hairs more dense on the margins and behind ; scutellum triangular, elongate ; elytra hispid, a small spot on each side

near the suture, a large apical patch extending a little up the lateral margins, and the pygidium, rufous ochre; beneath, purplish-coppery-black, the abdomen with the penultimate segment broadly, the rest narrowly margined with rufous ochre; the rest of the under surface, except the median line of the sternum, pale ochre irrorated with black; sternal process dilated, acutely rhomboidal; legs very thick, especially the hind pair, dotted and lined with ochre scales, and fringed with pale ochre hairs; anterior tibiæ dilated, with two teeth below the apex, the lower one small and indistinct.

Length 7 lines.

*Hab.*—Penang (Coll. Parry).

26. *CETONIA MIXTA*, Fabricius.

*Cetonia mixta*, Fabr. Syst. El. ii. p. 152.

*C. confusa*, Gory & Perch. Mon. Cet. p. 266, pl. 51, f. 4.

*Hab.*—Sumatra (Lac.).

27. *CETONIA CUPRIPES*, Wiedemann.

*Cetonia cupripes*, Wied. in Germ. Mag. iv. p. 146.

*C. rufocuprea*, G. & P. Mon. Cet. p. 205, pl. 37, f. 4.

*Hab.*—Java.

28. *CETONIA GUTTULATA*, Burmeister.

*Protætia guttulata*, Burm. Handb. iii. p. 483.

*Hab.*—Timor.

29. *CETONIA RESPLENDENS*, Burmeister.

*Protætia resplendens*, Burm. Handb. iii. p. 475.

*Hab.*—Timor? (Lac.); Siwas? (Burm.).

30. *CETONIA* (?) *MEGASPILOTA*, n. s.

*Protætia megaspilota*, MS. (B. M.).

Nigra, clypeo bidentato; supra maculis viginti nacreis; subtus processu sternali divergente, maculis irregularibus nacreis.

Black; clypeus elongate, narrowed at the apex and deeply notched; head with a ridge between the eyes, punctate; thorax convex, punctate, with a median line and a large lateral patch fine pearly white; scutellum and

epimera pearly; elytra with faint chain-like striæ, and strong sutural spines at the apex; three marginal and four discal spots on each side, with a rich pearly lustre; pygidium with a central pearly spot; beneath, with four rows of spots on the abdomen and irregular patches on the sternum and abdomen greenish pearly; sternal process elongate, straight, somewhat recurved at the end.

Length 8 lines.

*Hab.*—Philippine Islands (B. M.).

A most elegant and very distinct species.

31. *CETONIA* (?) *FRANCOLINA*, Burmeister.

*Cetonia francolina*, Burm. Handb. iii. p. 794.

“*Atra, supra opaca, subtus nitida, undique albo-maculata; pronoti lineis quinque guttisque duabus, elytro singulo guttis octo, scutello linea, albis. Long. 5 lin.*” (Burm.).

*Hab.*—Philippine Islands (B. M., Coll. Parry).

The specimen in the British Museum has the spots ochre-buff.

32. *CETONIA* (?) *IRRORATA*, n. s.

*Nigra, nitida, sub-convexa, grosse punctata, lateribus albo-irroratis; elytris sinuatis apice truncatis; subtus corpore et femoribus pilis albis vestitis.*

Black, shining, sub-convex; clypeus short, with two upturned teeth in front, wide apart; thorax convex, coarsely punctate, the sides broadly irrorated with white; scutellum sub-triangular, smooth, with a few punctures at the basal angles; elytra rugosely punctate, and with faint elevated ridges, dotted and irrorated with white more densely towards the margins, the apex truncate; pygidium irrorated with white at the sides; beneath, a white spot at the lower angles of each abdominal segment; the thighs thorax and body clothed with white hairs; anterior tibiæ with two strong teeth below the apex; the sternal process abruptly dilated at the end.

Length 7 lines.

*Hab.*—Philippine Islands (Coll. Parry).

This insect appears to have some of the characters of the African genus *Diplognatha*, and it will probably form a new genus between it and true *Cetonia*. (It is the *Ænopoptochilus*, White, MS.). I refrain, however, from forming new genera, without a more complete knowledge of the whole family.

## Gen. XIV. STERNOPLUS, n. g.

Clypeus with the sides elevated and terminating in two incurved teeth; thorax and elytra as in *Cetonia*; sternal process elongate, not dilated, abruptly divergent, formed almost entirely of the metasternum, without a suture; anterior tibiæ with only one small lateral tooth, middle and hind tibiæ with a small marginal notch.

Type, *Cetonia Schaumii*, White.

Has the appearance of a *Cetonia* of the *Protætia* type, but differs from these so remarkably as to require the establishment of a new genus. The species was taken on foliage near Macassar, and at the sap of the sugar palm in North Celebes.

## 1. STERNOPLUS SCHAUMII, White.

*Cetonia (Protætia) Schaumii*, White, Proc. Zool. Soc. 1856, p. 17, pl. xli. f. 10.

*Schizorhina sanguinolenta*, Voll. Tijds. v. Ent. vii. p. 155, pl. 10, f. 2.

*Hab.*—Macassar, Menado, Celebes (Coll. Wall.).

This fine species varies much, the ground colour being rich green or deep black, and the red spots and bands either very broad or almost obsolete, pale reddish yellow or deep red. The figures above quoted represent two widely different forms; that of Vollenhoven is badly drawn, being much too wide behind.

## Sub.-fam. VI. CREMASTOCHILINÆ.

## Gen. XV. CENTROGNATHUS, Guérin.

This rare genus has only been found at Malacca.

## 1. CENTROGNATHUS SUBRUGOSUS, Guérin.

*Centrognathus subrugosus*, Guér. Rev. Zool. 1840, p. 80.

*Hab.*—Penang (Coll. Parry, type).

## Gen. XVI. RHAGOPTERYX, Burmeister.

A rare genus, comprising only a single species from Java.

## 1. RHAGOPTERYX BRAHMA, Gory &amp; Percheron.

*Cremastocheilus brahma*, Gory & Perch. Mon. Cet. p. 120, pl. 17, f. 3. *Rhagoptyeryx brahma*, Burm. Handb. iii.

p. 650.

*Hab.*—Java.

## Gen. XVII. MACROMA, Gory &amp; Percheron.

A continental genus, of which two species only extend into the western part of the Archipelago, where they appear to be rare.

## 1. MACROMA JAVANICA, Gory &amp; Percheron.

*Macroma javanica*, Gory & Perch. Mon. Cet. p. 148.  
pl. 23, f. 5; Burm. Handb. iii. p. 645.

*Hab.*—Java (Coll. Parry).

## 2. MACROMA FLAVOGUTTATA, Vollenhoven.

*Macroma flavoguttata*, Voll. Tijd. v. Ent. vii. p. 159,  
pl. 10, f. 6.

“Atra, nitida, pronoti margine laterali anteriori guttisque quinque flavis. Long. 16 mm.” (Voll.).

*Hab.*—Borneo (Leyden Museum).

Professor Westwood has kindly undertaken the description of the following new genus of this sub-family, a group to which he has given much attention.

## Gen. XVIII. EUREMINA, Westwood.

Gen. nov. corpore parvo, oblongo, supra planiusculo, habitu *Cremastochilorum*, nonnullorum necnon *Cnemidarum* (*Rutelidarum*); *Macromati* tamen magis affine.

*Caput* vertice in tuberculum parvum subconicum prominente; *clypeo* emarginato; *antennæ* 10-articulatæ, formæ ordinariæ; *maxillæ* mandone in medio marginis interni dente præditæ, lobo apicali simplici, longe piloso; *mentum* truncato-cordatum, margine antico profunde emarginato, parte antica impressa. *Prothorax* sub-heptagonus, supra planiusculus; *prosternum* simplex, medio marginis antici in angulum parvum conicum productum; *meso-* et *meta-sterna* simplicia. *Elytra* planiuscula, glabra; in medio longitudinaliter sulcata et striata. *Abdomen* (in individuo nostro unico) infra haud sulcatum, segmento penultimo utrinque haud tuberculato. *Pedes* sat graciles, *tibiis* 2 anticis tri-, 4 posticis bi-denticulatis; *tarsis* gracilibus, 5-articulatis.

## 1. EUREMINA AGNELLA, Westwood. (Pl. XIV. fig. 9).

Nigra, nitida; capite et pronoto rude punctatis; elytris nigris, basi rufis, colore rufo in marginem lateralem et ad suturam longitudinaliter extenso, in medio profunde sulcatis et striolis in profunditate impressis.

Long. corp. lin. 5½.

*Hab.*—Penang (Dom. Lamb).



## Explanation of the Plates.

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No. of Species.	Distribution of Sub-families.	INDIAN REGION.		AUSTRALIAN REGION.				
		Indo-Malay Islands.	Philippines.	Celebes.	Moluccan Group.	Papuan Islands.	Timor Group.	Islands East of N. Guinea
17	GOLIATHINÆ.....	9	6	1	-	-	2	
38	GYMNETINÆ.....	13	2	-	7	9	3	5
39	MACRONOTINÆ.....	29	5	6	2	1		
8	SCHIZORHININÆ...	-	-	-	4	3	-	1
74	CETONINÆ.....	32	18	12	11	4	5	1
5	CREMASTOCHILINÆ	5						
181	Total Species.	88	31	19	24	17	10	7
		114		70				

NOTE.—For the information of persons wishing to consult the types of new species, I beg to state that all the insects enumerated in this Catalogue, to the locality of which is appended (Coll. Wall.), are now in the possession of Edwin Brown, Esq., of Burton-on-Trent.



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NOTE.—Where the name only of an Insect is mentioned, the description of the Insect will be found at the page referred to.

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